Clinical trial results:
A Phase 3, Randomized, Double-blind, Active Comparator-controlled Clinical Study to Evaluate the Safety, Tolerability, and Immunogenicity of V116 in Pneumococcal Vaccine-naïve Adults

Summary

EudraCT number	2022-000258-27
Trial protocol	DE SE BE
Global end of trial date	18 May 2023

Results information

Result version number	v1 (current)
This version publication date	31 May 2024
First version publication date	31 May 2024

Trial information

Trial identification

Sponsor protocol code	V116-003

Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT05425732
WHO universal trial number (UTN)	-

Notes:

Sponsors

Sponsor organisation name	Merck Sharp & Dohme LLC
Sponsor organisation address	126 East Lincoln Avenue, Rahway, NJ, United States, P.O. Box 2000
Public contact	Clinical Trials Disclosure, Merck Sharp & Dohme LLC, ClinicalTrialsDisclosure@merck.com
Scientific contact	Clinical Trials Disclosure, Merck Sharp & Dohme LLC, ClinicalTrialsDisclosure@merck.com

Notes:

Paediatric regulatory details

Is trial part of an agreed paediatric investigation plan (PIP)	No
Does article 45 of REGULATION (EC) No 1901/2006 apply to this trial?	No
Does article 46 of REGULATION (EC) No 1901/2006 apply to this trial?	No

Notes:

Results analysis stage

Analysis stage	Final
Date of interim/final analysis	18 May 2023
Is this the analysis of the primary completion data?	Yes
Primary completion date	18 May 2023
Global end of trial reached?	Yes
Global end of trial date	18 May 2023
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

This is a phase 3, randomized, double-blind, active comparator-controlled study of the safety, tolerability, and immunogenicity of V116 compared to PCV20 (pneumococcal 20-valent conjugate vaccine ([Prevnar 20™ / APEXXNAR™]) in pneumococcal vaccine-naïve adults. It is hypothesized that V116 is noninferior to PCV20 for the common serotypes and superior to PCV20 for the unique serotypes as assessed by serotype specific opsonophagocytic activity (OPA) 30 days postvaccination. It is also hypothesized that V116 in participants 18 to 49 years of age immunobridges to V116 in participants 50 to 64 years of age as assessed by serotype specific OPA geometric mean titers (GMTs) 30 days postvaccination for all 21 serotypes in V116. Participants ≥50 years of age will be enrolled in Cohort 1, and participants 18 to 49 years of age will be enrolled in Cohort 2.

Protection of trial subjects:

This study was conducted in conformance with Good Clinical Practice standards and applicable country and/or local statutes and regulations regarding ethical committee review,
informed consent, and the protection of human subjects participating in biomedical research.

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	13 July 2022
Long term follow-up planned	No
Independent data monitoring committee (IDMC) involvement?	Yes

Notes:

Population of trial subjects

Subjects enrolled per country

Country: Number of subjects enrolled	Australia: 95
Country: Number of subjects enrolled	Belgium: 155
Country: Number of subjects enrolled	Chile: 135
Country: Number of subjects enrolled	Germany: 80
Country: Number of subjects enrolled	New Zealand: 290
Country: Number of subjects enrolled	Puerto Rico: 155
Country: Number of subjects enrolled	Korea, Republic of: 200
Country: Number of subjects enrolled	Sweden: 110
Country: Number of subjects enrolled	Taiwan: 123
Country: Number of subjects enrolled	Türkiye: 56
Country: Number of subjects enrolled	United States: 1264
Worldwide total number of subjects	2663
EEA total number of subjects	345

Notes:

Subjects enrolled per age group	
In utero	0
Preterm newborn - gestational age < 37 wk	0
Newborns (0-27 days)	0
Infants and toddlers (28 days-23 months)	0
Children (2-11 years)	0
Adolescents (12-17 years)	0
Adults (18-64 years)	1480
From 65 to 84 years	1156
85 years and over	27

Subject disposition

Recruitment

Recruitment details: -

Pre-assignment

Screening details:

Pneumococcal vaccine-naïve adults ≥18 years of age were enrolled in this study. Participants with underlying chronic conditions were eligible if the conditions were assessed to be stable per the investigator's judgment.

Period 1

Period 1 title	Started/Randommized
Is this the baseline period?	No
Allocation method	Randomised - controlled
Blinding used	Double blind
Roles blinded	Subject, Investigator

Arms

Are arms mutually exclusive?	Yes
Arm title	Cohort 1 V116

Arm description:

Pneumococcal vaccine-naïve adult participants (≥50 years of age) receive a single dose of pneumococcal 21-valent conjugate vaccine (V116) on Day 1.

Arm type	Experimental
Investigational medicinal product name	V116
Investigational medicinal product code	
Other name	Pneumococcal 21-valent Conjugate Vaccine
Pharmaceutical forms	Injection
Routes of administration	Intramuscular use

Dosage and administration details:

A single dose of V116 in a 0.5 mL injection solution in prefilled syringe containing 4 µg of each PnPs antigen (3, 6A, 7F, 8, 9N, 10A, 11A, 12F, 15A, 15C, 16F, 17F, 19A, 20A, 22F, 23A, 23B, 24F, 31, 33F, and 35B) given by intramuscular (IM) injection.

Arm title	Cohort 1 PCV20

Arm description:

Pneumococcal vaccine-naïve adult participants (≥50 years of age) receive a single dose of pneumococcal 20-valent conjugate vaccine (PCV20) on Day 1.

Arm type	Experimental
Investigational medicinal product name	PCV20
Investigational medicinal product code	
Other name	Prevnar 20™ APEXXNAR™
Pharmaceutical forms	Injection
Routes of administration	Intramuscular use

Dosage and administration details:

A single dose of PCV20 in 0.5 mL injection suspension in prefilled syringe containing 2.2 µg of each PnPs antigen (1, 3, 4, 5, 6A, 7F, 8, 9V, 10A, 11A, 12F, 14, 15B, 18C, 19A, 19F, 22F, 23F, 33F) and 4.4 µg of PnPs antigen 6B.

Arm title	Cohort 2 V116

Arm description:

Pneumococcal vaccine-naïve adult participants (18 to 49 years of age) receive a single dose of V116 on Day 1.

Arm type	Experimental

Investigational medicinal product name	V116
Investigational medicinal product code	
Other name	Pneumococcal 21-valent Conjugate Vaccine
Pharmaceutical forms	Injection
Routes of administration	Intramuscular use

Dosage and administration details:

A single dose of V116 in a 0.5 mL injection solution in prefilled syringe containing 4 µg of each PnPs antigen (3, 6A, 7F, 8, 9N, 10A, 11A, 12F, 15A, 15C, 16F, 17F, 19A, 20A, 22F, 23A, 23B, 24F, 31, 33F, and 35B) given by intramuscular (IM) injection.

Arm title	Cohort 2 PCV20

Arm description:

Pneumococcal vaccine-naïve adult participants (18 to 49 years of age) receive a single dose of PCV20 on Day 1.

Arm type	Experimental
Investigational medicinal product name	PCV20
Investigational medicinal product code	
Other name	Prevnar 20™ APEXXNAR™
Pharmaceutical forms	Injection
Routes of administration	Intramuscular use

Dosage and administration details:

A single dose of PCV20 in 0.5 mL injection suspension in prefilled syringe containing 2.2 µg of each PnPs antigen (1, 3, 4, 5, 6A, 7F, 8, 9V, 10A, 11A, 12F, 14, 15B, 18C, 19A, 19F, 22F, 23F, 33F) and 4.4 µg of PnPs antigen 6B.

Number of subjects in period 1	Cohort 1 V116	Cohort 1 PCV20	Cohort 2 V116
Started	1181	1181	201
Safety All Cause Mortality (ACM)	1179	1179	201
Completed	1179	1177	200
Not completed	2	4	1
Consent withdrawn by subject	1	1	1
Physician decision	-	1	-
Randomized By Mistake Without Study Treatment	1	2	-

Number of subjects in period 1	Cohort 2 PCV20
Started	100
Safety All Cause Mortality (ACM)	100
Completed	100
Not completed	0
Consent withdrawn by subject	-
Physician decision	-
Randomized By Mistake Without Study Treatment	-

Period 2

Period 2 title	Vaccinated
Is this the baseline period?	Yes[1]
Allocation method	Randomised - controlled
Blinding used	Double blind
Roles blinded	Subject, Investigator

Arms

Are arms mutually exclusive?	Yes
Arm title	Cohort 1 V116

Arm description:

Pneumococcal vaccine-naïve adult participants (≥50 years of age) receive a single dose of pneumococcal 21-valent conjugate vaccine (V116) on Day 1.

Arm type	Experimental
Investigational medicinal product name	V116
Investigational medicinal product code	
Other name	Pneumococcal 21-valent Conjugate Vaccine
Pharmaceutical forms	Injection
Routes of administration	Intramuscular use

Dosage and administration details:

A single dose of V116 in a 0.5 mL injection solution in prefilled syringe containing 4 µg of each PnPs antigen (3, 6A, 7F, 8, 9N, 10A, 11A, 12F, 15A, 15C, 16F, 17F, 19A, 20A, 22F, 23A, 23B, 24F, 31, 33F, and 35B) given by intramuscular (IM) injection.

Arm title	Cohort 1 PCV20

Arm description:

Pneumococcal vaccine-naïve adult participants (≥50 years of age) receive a single dose of pneumococcal 20-valent conjugate vaccine (PCV20) on Day 1.

Arm type	Experimental
Investigational medicinal product name	PCV20
Investigational medicinal product code	
Other name	Prevnar 20™ APEXXNAR™
Pharmaceutical forms	Injection
Routes of administration	Intramuscular use

Dosage and administration details:

A single dose of PCV20 in 0.5 mL injection suspension in prefilled syringe containing 2.2 µg of each PnPs antigen (1, 3, 4, 5, 6A, 7F, 8, 9V, 10A, 11A, 12F, 14, 15B, 18C, 19A, 19F, 22F, 23F, 33F) and 4.4 µg of PnPs antigen 6B.

Arm title	Cohort 2 V116

Arm description:

Pneumococcal vaccine-naïve adult participants (18 to 49 years of age) receive a single dose of V116 on Day 1.

Arm type	Experimental
Investigational medicinal product name	V116
Investigational medicinal product code	
Other name	Pneumococcal 21-valent Conjugate Vaccine
Pharmaceutical forms	Injection
Routes of administration	Intramuscular use

Dosage and administration details:

A single dose of V116 in a 0.5 mL injection solution in prefilled syringe containing 4 µg of each PnPs

antigen (3, 6A, 7F, 8, 9N, 10A, 11A, 12F, 15A, 15C, 16F, 17F, 19A, 20A, 22F, 23A, 23B, 24F, 31, 33F, and 35B) given by intramuscular (IM) injection.

Arm title	Cohort 2 PCV20
Arm description:	
Pneumococcal vaccine-naïve adult participants (18 to 49 years of age) receive a single dose of PCV20 on Day 1.	
Arm type	Experimental
Investigational medicinal product name	PCV20
Investigational medicinal product code	
Other name	Prevnar 20™ APEXXNAR™
Pharmaceutical forms	Injection
Routes of administration	Intramuscular use
Dosage and administration details:	
A single dose of PCV20 in 0.5 mL injection suspension in prefilled syringe containing 2.2 µg of each PnPs antigen (1, 3, 4, 5, 6A, 7F, 8, 9V, 10A, 11A, 12F, 14, 15B, 18C, 19A, 19F, 22F, 23F, 33F) and 4.4 µg of PnPs antigen 6B.	
Notes:	
[1] - Period 1 is not the baseline period. It is expected that period 1 will be the baseline period.	
Justification: Instead of Period 1, Period 2, vaccinated, was the baseline period.	

Number of subjects in period 2[2]	Cohort 1 V116	Cohort 1 PCV20	Cohort 2 V116
Started	1179	1177	200
All Participants as Treated (APaT)	1177	1175	200
Safety Adverse Event (AE)	1177	1175	200
Completed	1160	1152	195
Not completed	19	25	5
Adverse event, serious fatal	4	2	-
Consent withdrawn by subject	3	7	-
Physician decision	-	1	-
Randomized to PCV20 then V116	2	-	-
Lost to follow-up	10	15	5

Number of subjects in period 2[2]	Cohort 2 PCV20
Started	100
All Participants as Treated (APaT)	100
Safety Adverse Event (AE)	100
Completed	96
Not completed	4
Adverse event, serious fatal	-
Consent withdrawn by subject	1
Physician decision	-

Randomized to PCV20 then V116	-
Lost to follow-up	3

Notes:

[2] - The number of subjects reported to be in the baseline period are not the same as the worldwide number enrolled in the trial. It is expected that these numbers will be the same.

Justification: The number of participants in the baseline period was not the worldwide number enrolled, but rather the number vaccinated.

Baseline characteristics

Reporting groups	
Reporting group title	Cohort 1 V116
Reporting group description:	
Pneumococcal vaccine-naïve adult participants (≥50 years of age) receive a single dose of pneumococcal 21-valent conjugate vaccine (V116) on Day 1.	
Reporting group title	Cohort 1 PCV20
Reporting group description:	
Pneumococcal vaccine-naïve adult participants (≥50 years of age) receive a single dose of pneumococcal 20-valent conjugate vaccine (PCV20) on Day 1.	
Reporting group title	Cohort 2 V116
Reporting group description:	
Pneumococcal vaccine-naïve adult participants (18 to 49 years of age) receive a single dose of V116 on Day 1.	
Reporting group title	Cohort 2 PCV20
Reporting group description:	
Pneumococcal vaccine-naïve adult participants (18 to 49 years of age) receive a single dose of PCV20 on Day 1.	

Reporting group values	Cohort 1 V116	Cohort 1 PCV20	Cohort 2 V116
Number of subjects	1179	1177	200
Age Categorical Units: Participants			
18 to 49 years	0	0	200
50 to 64 years	589	587	0
65 to 74 years	464	464	0
75 to 84 years	112	113	0
≥85 years	14	13	0
Age Continuous Units: Years			
arithmetic mean	63.9	63.9	35.2
standard deviation	± 8.3	± 8.3	± 9.0
Sex: Female, Male Units:			
Female	687	670	137
Male	492	507	63
Race (NIH/OMB) Units: Subjects			
American Indian or Alaska Native	4	4	0
Asian	148	168	38
Native Hawaiian or Other Pacific Islander	17	16	1
Black or African American	116	115	13
White	867	844	139
More than one race	26	30	9
Unknown or Not Reported	1	0	0
Ethnicity (NIH/OMB) Units: Subjects			
Hispanic or Latino	259	242	58

Not Hispanic or Latino	909	922	141
Unknown or Not Reported	11	13	1

Reporting group values	Cohort 2 PCV20	Total	
Number of subjects	100	2656	
Age Categorical Units: Participants			
18 to 49 years	100	300	
50 to 64 years	0	1176	
65 to 74 years	0	928	
75 to 84 years	0	225	
≥85 years	0	27	
Age Continuous Units: Years			
arithmetic mean	34.6		
standard deviation	± 8.7	-	
Sex: Female, Male Units:			
Female	64	1558	
Male	36	1098	
Race (NIH/OMB) Units: Subjects			
American Indian or Alaska Native	1	9	
Asian	15	369	
Native Hawaiian or Other Pacific Islander	2	36	
Black or African American	14	258	
White	62	1912	
More than one race	6	71	
Unknown or Not Reported	0	1	
Ethnicity (NIH/OMB) Units: Subjects			
Hispanic or Latino	24	583	
Not Hispanic or Latino	76	2048	
Unknown or Not Reported	0	25	

End points

End points reporting groups

Reporting group title	Cohort 1 V116
Reporting group description:	
Pneumococcal vaccine-naïve adult participants (≥50 years of age) receive a single dose of pneumococcal 21-valent conjugate vaccine (V116) on Day 1.	
Reporting group title	Cohort 1 PCV20
Reporting group description:	
Pneumococcal vaccine-naïve adult participants (≥50 years of age) receive a single dose of pneumococcal 20-valent conjugate vaccine (PCV20) on Day 1.	
Reporting group title	Cohort 2 V116
Reporting group description:	
Pneumococcal vaccine-naïve adult participants (18 to 49 years of age) receive a single dose of V116 on Day 1.	
Reporting group title	Cohort 2 PCV20
Reporting group description:	
Pneumococcal vaccine-naïve adult participants (18 to 49 years of age) receive a single dose of PCV20 on Day 1.	
Reporting group title	Cohort 1 V116
Reporting group description:	
Pneumococcal vaccine-naïve adult participants (≥50 years of age) receive a single dose of pneumococcal 21-valent conjugate vaccine (V116) on Day 1.	
Reporting group title	Cohort 1 PCV20
Reporting group description:	
Pneumococcal vaccine-naïve adult participants (≥50 years of age) receive a single dose of pneumococcal 20-valent conjugate vaccine (PCV20) on Day 1.	
Reporting group title	Cohort 2 V116
Reporting group description:	
Pneumococcal vaccine-naïve adult participants (18 to 49 years of age) receive a single dose of V116 on Day 1.	
Reporting group title	Cohort 2 PCV20
Reporting group description:	
Pneumococcal vaccine-naïve adult participants (18 to 49 years of age) receive a single dose of PCV20 on Day 1.	
Subject analysis set title	V116 18 to 49 years old
Subject analysis set type	Per protocol
Subject analysis set description:	
Pneumococcal vaccine-naïve adult participants 18 to 49 years of age receive a single dose of V116 on Day 1.	
Subject analysis set title	V116 50 to 64 years old
Subject analysis set type	Per protocol
Subject analysis set description:	
Pneumococcal vaccine-naïve adult participants 50 to 64 years of age receive a single dose of V116 on Day 1.	
Subject analysis set title	V116 18 to 49 years old
Subject analysis set type	Per protocol
Subject analysis set description:	
Pneumococcal vaccine-naïve adult participants in Cohort 2 (18 to 49 years of age) receive a single dose of V116 on Day 1.	
Subject analysis set title	V116 50 to 64 years old
Subject analysis set type	Per protocol
Subject analysis set description:	
Pneumococcal vaccine-naïve adult participants in Cohort 1 50 to 64 years of age receive a single dose of	

V116 on Day 1.

Primary: Percentage of participants with solicited injection-site adverse events (AEs)	
End point title	Percentage of participants with solicited injection-site adverse events (AEs)
End point description:	
An AE is any untoward medical occurrence in a clinical study participant, temporally associated with the use of study intervention, whether or not considered related to the study intervention. Solicited injection-site AEs consist of the following: pain/tenderness, redness/erythema, and swelling. The population analyzed was all participants as treated consisting of randomized participants who were included in the group corresponding to the vaccine actually received.	
End point type	Primary
End point timeframe:	
Up to 5 days post-vaccination	

End point values	Cohort 1 V116	Cohort 1 PCV20	Cohort 2 V116	Cohort 2 PCV20
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	1177	1175	200	100
Units: Percentage of participants				
number (not applicable)				
Injection site erythema	5.4	6.3	15.5	13.0
Injection site pain	39.4	51.7	71.5	74.0
Injection site swelling	6.0	8.3	14.0	14.0

Statistical analyses

Statistical analysis title	Injection site erythema
Statistical analysis description:	
Estimated difference in percent	
Comparison groups	Cohort 1 V116 v Cohort 1 PCV20
Number of subjects included in analysis	2352
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	Difference in Percent
Point estimate	-0.9
Confidence interval	
level	Other: 96 %
sides	2-sided
lower limit	-2.8
upper limit	1.1

Statistical analysis title	Injection site pain

Statistical analysis description: Estimated difference in percent	
Comparison groups	Cohort 1 V116 v Cohort 1 PCV20
Number of subjects included in analysis	2352
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	Difference in Percent
Point estimate	-12.2
Confidence interval	
level	95 %
sides	2-sided
lower limit	-16.2
upper limit	-8.2

Statistical analysis title	Injection site swelling
Statistical analysis description: Estimated difference in percent	
Comparison groups	Cohort 2 V116 v Cohort 2 PCV20
Number of subjects included in analysis	300
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	Difference in Percent
Point estimate	0
Confidence interval	
level	95 %
sides	2-sided
lower limit	-9.2
upper limit	7.9

Statistical analysis title	Injection site erythema:
Statistical analysis description: Estimated difference in percent	
Comparison groups	Cohort 2 V116 v Cohort 2 PCV20
Number of subjects included in analysis	300
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	Difference in Percent
Point estimate	2.5
Confidence interval	
level	95 %
sides	2-sided
lower limit	-6.6
upper limit	10.3

Statistical analysis title	Injection site pain
Statistical analysis description: Estimated difference in percent	
Comparison groups	Cohort 2 V116 v Cohort 2 PCV20
Number of subjects included in analysis	300
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	Difference in Percent
Point estimate	-2.5
Confidence interval	
level	95 %
sides	2-sided
lower limit	-12.7
upper limit	8.6

Statistical analysis title	Injection site swelling
Statistical analysis description: Estimated difference in percent	
Comparison groups	Cohort 1 V116 v Cohort 1 PCV20
Number of subjects included in analysis	2352
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	Difference in Percent
Point estimate	-2.3
Confidence interval	
level	95 %
sides	2-sided
lower limit	-4.4
upper limit	-0.2

Primary: Percentage of participants with solicited systemic AEs

End point title	Percentage of participants with solicited systemic AEs

End point description:

An AE is any untoward medical occurrence in a clinical study participant, temporally associated with the use of study intervention, whether or not considered related to the study intervention. Solicited systemic AEs consist of the following: fatigue (tiredness), headache, myalgia (muscle aches), and pyrexia (maximum temperature ≥ 100.4 °F/38.0 °C). The population analyzed was all participants as treated consisting of randomized participants who were included in the group corresponding to the vaccine actually received.

End point type	Primary

End point timeframe:

Up to 5 days post-vaccination

End point values	Cohort 1 V116	Cohort 1 PCV20	Cohort 2 V116	Cohort 2 PCV20
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	1177	1175	200	100
Units: Percentage of participants				
number (not applicable)				
Fatigue	20.1	19.6	40.5	34.0
Headache	11.5	12.9	29.5	24.0
Myalgia	5.9	6.7	16.5	14.0
Pyrexia	1.3	1.3	3.5	1.0

Statistical analyses

Statistical analysis title	Fatigue
Statistical analysis description: Estimated difference in percent	
Comparison groups	Cohort 1 V116 v Cohort 1 PCV20
Number of subjects included in analysis	2352
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	Difference in Percent
Point estimate	0.6
Confidence interval	
level	95 %
sides	2-sided
lower limit	-2.7
upper limit	3.8

Statistical analysis title	Headache
Statistical analysis description: Estimated difference in percent	
Comparison groups	Cohort 1 V116 v Cohort 1 PCV20
Number of subjects included in analysis	2352
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	Difference in Percent
Point estimate	-1.5
Confidence interval	
level	95 %
sides	2-sided
lower limit	-4.1
upper limit	1.2

Statistical analysis title	Fatigue

Statistical analysis description: Estimated difference in percent	
Comparison groups	Cohort 2 V116 v Cohort 2 PCV20
Number of subjects included in analysis	300
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	Difference in Percent
Point estimate	6.5
Confidence interval	
level	95 %
sides	2-sided
lower limit	-5.3
upper limit	17.6

Statistical analysis title	Headache
Statistical analysis description: Estimated difference in percent	
Comparison groups	Cohort 2 V116 v Cohort 2 PCV20
Number of subjects included in analysis	300
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	Difference in Percent
Point estimate	5.5
Confidence interval	
level	95 %
sides	2-sided
lower limit	-5.5
upper limit	15.5

Statistical analysis title	Myalgia
Statistical analysis description: Estimated difference in percent	
Comparison groups	Cohort 2 V116 v Cohort 2 PCV20
Number of subjects included in analysis	300
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	Difference in Percent
Point estimate	2.5
Confidence interval	
level	95 %
sides	2-sided
lower limit	-6.8
upper limit	10.6

Statistical analysis title	Pyrexia
Statistical analysis description: Estimated difference in percent	
Comparison groups	Cohort 2 V116 v Cohort 2 PCV20
Number of subjects included in analysis	300
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	Difference in Percent
Point estimate	2.5
Confidence interval	
level	95 %
sides	2-sided
lower limit	-2.2
upper limit	6.2

Statistical analysis title	Myalgia:
Statistical analysis description: Estimated difference in percent	
Comparison groups	Cohort 1 V116 v Cohort 1 PCV20
Number of subjects included in analysis	2352
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	Difference in Percent
Point estimate	-0.8
Confidence interval	
level	95 %
sides	2-sided
lower limit	-2.8
upper limit	1.2

Statistical analysis title	Pyrexia
Statistical analysis description: Estimated difference in percent	
Comparison groups	Cohort 1 V116 v Cohort 1 PCV20
Number of subjects included in analysis	2352
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	Difference in Percent
Point estimate	0
Confidence interval	
level	95 %
sides	2-sided
lower limit	-1
upper limit	1

Primary: Percentage of participants with vaccine-related serious AE (SAE)

End point title	Percentage of participants with vaccine-related serious AE (SAE)[1]

End point description:

A vaccine-related SAE is any untoward medical consequence that results in death, is life-threatening, requires inpatient hospitalization or prolongs existing hospitalization, results in persistent or significant disability/incapacity, is a congenital anomaly/birth defect, or is an other important medical event, which is determined by the investigator to be related to the vaccine. The population analyzed was all participants as treated consisting of randomized participants who were included in the group corresponding to the vaccine actually received.

End point type	Primary

End point timeframe:

Up to 194 days post-vaccination

Notes:

[1] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point.
Justification: No statistical comparison was specified because the results were zero.

End point values	Cohort 1 V116	Cohort 1 PCV20	Cohort 2 V116	Cohort 2 PCV20
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	1177	1175	200	100
Units: Percentage of participants				
number (not applicable)	0.0	0.0	0.0	0.0

Statistical analyses

No statistical analyses for this end point

Primary: Serotype specific opsonophagocytic (OPA) geometric mean titers (GMTs) in Cohort 1 only, for the pneumococcal serotypes contained in V116 and PCV20

End point title	Serotype specific opsonophagocytic (OPA) geometric mean titers (GMTs) in Cohort 1 only, for the pneumococcal serotypes contained in V116 and PCV20

End point description:

The serotype specific OPA GMTs for the pneumococcal serotypes in cohort 1 only were determined using the multiplex opsonophagocytic assay (MOPA). GMT values were estimated from a constrained longitudinal data analysis; (cLDA) model.The 10 common pneumococcal serotypes in both V116 and PCV20 were as follows: 3, 6A, 7F, 8, 10A, 11A, 12F, 19A, 22F, and 33F. The 11 unique pneumococcal serotypes in V116 were as follows: 9N, 15A, 15C, 16F, 17F, 20A, 23A, 23B, 24F, 31, and 35B. 99999 means per protocol, within group CIs, or any other measures of dispersion, were not determined. The population analyzed was all randomized participants from cohort 1 only, without deviations from the protocol that may substantially affect immunogenicity. Deviations include, but are not limited to the following: missing serology results; and blood draw out of window.

End point type	Primary

End point timeframe:

Day 30 post-vaccination

End point values	Cohort 1 V116	Cohort 1 PCV20	Cohort 2 V116	Cohort 2 PCV20
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	1179	1177	0[2]	0[3]
Units: Titer				
geometric mean (confidence interval 95%)				
Serotype 3	274.0 (0 to 99999)	176.7 (0 to 99999)	(to)	(to)
Serotype 6A	2302.0 (0 to 99999)	2972.5 (0 to 99999)	(to)	(to)
Serotype 7F	3637.4 (0 to 99999)	3429.9 (0 to 99999)	(to)	(to)
Serotype 8	2501.3 (90 to 99999)	1811.1 (0 to 99999)	(to)	(to)
Serotype 10A	3893.4 (0 to 99999)	4678.0 (0 to 99999)	(to)	(to)
Serotype 11A	3232.6 (0 to 99999)	2092.8 (0 to 99999)	(to)	(to)
Serotype 12F	2641.2 (0 to 99999)	2499.6 (0 to 99999)	(to)	(to)
Serotype 19A	2136.1 (0 to 99999)	2817.8 (0 to 99999)	(to)	(to)
Serotype 22F	3874.5 (0 to 99999)	4770.1 (0 to 99999)	(to)	(to)
Serotype 33F	13558.9 (0 to 99999)	11742.1 (0 to 99999)	(to)	(to)
Serotype 9N	7470.7 (0 to 99999)	1640.4 (0 to 99999)	(to)	(to)
Serotype 15A	5237.2 (0 to 99999)	1589.0 (0 to 99999)	(to)	(to)
Serotype 15C	4216.2 (0 to 99999)	2072.3 (0 to 99999)	(to)	(to)
Serotype 16F	4868.2 (0 to 99999)	846.3 (0 to 99999)	(to)	(to)
Serotype 17F	7764.9 (0 to 99999)	460.4 (0 to 99999)	(to)	(to)
Serotype 20A	6099.2 (0 to 99999)	631.1 (0 to 99999)	(to)	(to)
Serotype 23A	3737.2 (0 to 99999)	461.5 (0 to 99999)	(to)	(to)
Serotype 23B	1082.5 (0 to 99999)	107.3 (0 to 99999)	(to)	(to)
Serotype 24F	2728.6 (0 to 99999)	70.5 (0 to 99999)	(to)	(to)
Serotype 31	3132.5 (0 to 99999)	144.4 (0 to 99999)	(to)	(to)
Serotype 35B	8527.8 (0 to 99999)	1383.0 (0 to 99999)	(to)	(to)

Notes:

[2] - Per protocol, Cohort 2 were not analyzed in this endpoint.

[3] - Per protocol, Cohort 2 were not analyzed in this endpoint.

Statistical analyses

Statistical analysis title	Serotype 3
Statistical analysis description: V116/PCV20 GMT Ratio	
Comparison groups	Cohort 1 V116 v Cohort 1 PCV20

Number of subjects included in analysis	2356
Analysis specification	Pre-specified
Analysis type	
P-value	< 0.001 [4]
Method	cLDA model
Parameter estimate	GMT Ratio
Point estimate	1.55
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.4
upper limit	1.72

Notes:

[4] - 1-sided

Statistical analysis title	Serotype 6A
Statistical analysis description: V116/PCV20 GMT Ratio	
Comparison groups	Cohort 1 V116 v Cohort 1 PCV20
Number of subjects included in analysis	2356
Analysis specification	Pre-specified
Analysis type	
P-value	< 0.001
Method	cLDA model
Parameter estimate	GMT Ratio
Point estimate	0.77
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.68
upper limit	0.88

Statistical analysis title	Serotype 9N
Statistical analysis description: V116/PCV20 GMT Ratio	
Comparison groups	Cohort 1 V116 v Cohort 1 PCV20
Number of subjects included in analysis	2356
Analysis specification	Pre-specified
Analysis type	
P-value	< 0.001
Method	cLDA model
Parameter estimate	GMT Ratio
Point estimate	4.55
Confidence interval	
level	95 %
sides	2-sided
lower limit	4.12
upper limit	5.04

Statistical analysis title	Serotype 33F
Statistical analysis description: V116/PCV20 GMT Ratio	
Comparison groups	Cohort 1 V116 v Cohort 1 PCV20
Number of subjects included in analysis	2356
Analysis specification	Pre-specified
Analysis type	
P-value	< 0.001
Method	cLDA model
Parameter estimate	GMT Ratio
Point estimate	1.15
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.01
upper limit	1.32

Statistical analysis title	Serotype 22F
Statistical analysis description: V116/PCV20 GMT Ratio	
Comparison groups	Cohort 1 V116 v Cohort 1 PCV20
Number of subjects included in analysis	2356
Analysis specification	Pre-specified
Analysis type	
P-value	< 0.001
Method	cLDA model
Parameter estimate	GMT Ratio
Point estimate	0.81
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.72
upper limit	0.92

Statistical analysis title	Serotype 19A
Statistical analysis description: V116/PCV20 GMT Ratio	
Comparison groups	Cohort 1 V116 v Cohort 1 PCV20

Number of subjects included in analysis	2356
Analysis specification	Pre-specified
Analysis type	
P-value	< 0.001
Method	cLDA model
Parameter estimate	GMT Ratio
Point estimate	0.76
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.69
upper limit	0.84

Statistical analysis title	Serotype 12F
Statistical analysis description: V116/PCV20 GMT Ratio	
Comparison groups	Cohort 1 V116 v Cohort 1 PCV20
Number of subjects included in analysis	2356
Analysis specification	Pre-specified
Analysis type	
P-value	< 0.001
Method	cLDA model
Parameter estimate	GMT Ratio
Point estimate	1.06
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.92
upper limit	1.21

Statistical analysis title	Serotype 11A
Statistical analysis description: V116/PCV20 GMT Ratio	
Comparison groups	Cohort 1 V116 v Cohort 1 PCV20
Number of subjects included in analysis	2356
Analysis specification	Pre-specified
Analysis type	
P-value	< 0.001
Method	cLDA model
Parameter estimate	GMT Ratio
Point estimate	1.54
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.39
upper limit	1.72

Statistical analysis title	Serotype 10A
Statistical analysis description: V116/PCV20 GMT Ratio	
Comparison groups	Cohort 1 V116 v Cohort 1 PCV20
Number of subjects included in analysis	2356
Analysis specification	Pre-specified
Analysis type	
P-value	< 0.001
Method	cLDA model
Parameter estimate	GMT Ratio
Point estimate	0.83
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.75
upper limit	0.93

Statistical analysis title	Serotype 8
Statistical analysis description: V116/PCV20 GMT Ratio	
Comparison groups	Cohort 1 V116 v Cohort 1 PCV20
Number of subjects included in analysis	2356
Analysis specification	Pre-specified
Analysis type	
P-value	< 0.001
Method	cLDA model
Parameter estimate	GMT Ratio
Point estimate	1.38
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.25
upper limit	1.53

Statistical analysis title	Serotype 7
Statistical analysis description: V116/PCV20 GMT Ratio	
Comparison groups	Cohort 1 V116 v Cohort 1 PCV20

Number of subjects included in analysis	2356
Analysis specification	Pre-specified
Analysis type	
P-value	< 0.001
Method	cLDA model
Parameter estimate	GMT Ratio
Point estimate	1.06
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.95
upper limit	1.18

Statistical analysis title	Serotype 31
Statistical analysis description: V116/PCV20 GMT Ratio	
Comparison groups	Cohort 1 V116 v Cohort 1 PCV20
Number of subjects included in analysis	2356
Analysis specification	Pre-specified
Analysis type	
P-value	< 0.001
Method	cLDA model
Parameter estimate	GMT Ratio
Point estimate	21.69
Confidence interval	
level	95 %
sides	2-sided
lower limit	18.68
upper limit	25.18

Statistical analysis title	Serotype 24F
Statistical analysis description: V116/PCV20 GMT Ratio	
Comparison groups	Cohort 1 V116 v Cohort 1 PCV20
Number of subjects included in analysis	2356
Analysis specification	Pre-specified
Analysis type	
P-value	< 0.001
Method	cLDA model
Parameter estimate	GMT Ratio
Point estimate	38.71
Confidence interval	
level	95 %
sides	2-sided
lower limit	33.87
upper limit	44.25

Statistical analysis title	Serotype 23B
Statistical analysis description: V116/PCV20 GMT Ratio	
Comparison groups	Cohort 1 V116 v Cohort 1 PCV20
Number of subjects included in analysis	2356
Analysis specification	Pre-specified
Analysis type	
P-value	< 0.001
Method	cLDA model
Parameter estimate	GMT Ratio
Point estimate	10.09
Confidence interval	
level	95 %
sides	2-sided
lower limit	8.48
upper limit	12

Statistical analysis title	Serotype 23A
Statistical analysis description: V116/PCV20 GMT Ratio	
Comparison groups	Cohort 1 V116 v Cohort 1 PCV20
Number of subjects included in analysis	2356
Analysis specification	Pre-specified
Analysis type	
P-value	< 0.001
Method	cLDA model
Parameter estimate	GMT Ratio
Point estimate	8.1
Confidence interval	
level	95 %
sides	2-sided
lower limit	6.86
upper limit	9.55

Statistical analysis title	Serotype 35B
Statistical analysis description: V116/PCV20 GMT Ratio	
Comparison groups	Cohort 1 V116 v Cohort 1 PCV20

Number of subjects included in analysis	2356
Analysis specification	Pre-specified
Analysis type	
P-value	< 0.001
Method	cLDA model
Parameter estimate	GMT Ratio
Point estimate	6.17
Confidence interval	
level	95 %
sides	2-sided
lower limit	5.59
upper limit	6.8

Statistical analysis title	Serotype 17F
Statistical analysis description: V116/PCV20 GMT Ratio	
Comparison groups	Cohort 1 V116 v Cohort 1 PCV20
Number of subjects included in analysis	2356
Analysis specification	Pre-specified
Analysis type	
P-value	< 0.001
Method	cLDA model
Parameter estimate	GMT Ratio
Point estimate	16.86
Confidence interval	
level	95 %
sides	2-sided
lower limit	14.9
upper limit	19.09

Statistical analysis title	Serotype 16F
Statistical analysis description: V116/PCV20 GMT Ratio	
Comparison groups	Cohort 1 V116 v Cohort 1 PCV20
Number of subjects included in analysis	2356
Analysis specification	Pre-specified
Analysis type	
P-value	< 0.001
Method	cLDA model
Parameter estimate	GMT Ratio
Point estimate	5.75
Confidence interval	
level	95 %
sides	2-sided
lower limit	5.16
upper limit	6.41

Statistical analysis title	Serotype 15C
Statistical analysis description: V116/PCV20 GMT Ratio	
Comparison groups	Cohort 1 V116 v Cohort 1 PCV20
Number of subjects included in analysis	2356
Analysis specification	Pre-specified
Analysis type	
P-value	< 0.001
Method	cLDA model
Parameter estimate	GMT Ratio
Point estimate	2.03
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.77
upper limit	2.34

Statistical analysis title	Serotype 15A
Statistical analysis description: V116/PCV20 GMT Ratio	
Comparison groups	Cohort 1 V116 v Cohort 1 PCV20
Number of subjects included in analysis	2356
Analysis specification	Pre-specified
Analysis type	
P-value	< 0.001
Method	cLDA model
Parameter estimate	GMT Ratio
Point estimate	3.3
Confidence interval	
level	95 %
sides	2-sided
lower limit	2.91
upper limit	3.74

Statistical analysis title	Serotype 20A
Statistical analysis description: V116/PCV20 GMT Ratio	
Comparison groups	Cohort 1 V116 v Cohort 1 PCV20

Number of subjects included in analysis	2356
Analysis specification	Pre-specified
Analysis type	
P-value	< 0.001
Method	cLDA model
Parameter estimate	GMT Ratio
Point estimate	9.66
Confidence interval	
level	95 %
sides	2-sided
lower limit	8.66
upper limit	10.79

Primary: Percentage of participants with ≥4-fold change from baseline in serotype specific OPA responses in Cohort 1 only for the 11 unique pneumococcal serotypes contained in V116.

End point title	Percentage of participants with ≥4-fold change from baseline in serotype specific OPA responses in Cohort 1 only for the 11 unique pneumococcal serotypes contained in V116.

End point description:

The percentage of participants with ≥4-fold rise from baseline in serotype specific OPAs for the 11 unique pneumococcal serotypes contained in V116. Per protocol, within group CIs or any other measures of dispersion were not planned or determined. The 11 unique pneumococcal serotypes in V116 were as follows: 9N, 15A, 15C, 16F, 17F, 20A, 23A, 23B, 24F, 31, and 35B. 99999 means per protocol, within group CIs, or any other measures of dispersion, were not determined. The population analyzed was all randomized participants from cohort 1 only, without deviations from the protocol that may substantially affect immunogenicity. Deviations include, but are not limited to the following: missing serology results; and blood draw out of window

End point type	Primary

End point timeframe:

Baseline and Day 30 post-vaccination

End point values	Cohort 1 V116	Cohort 1 PCV20	Cohort 2 V116	Cohort 2 PCV20
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	1179	1177	0[5]	0[6]
Units: Percentage of participants				
number (confidence interval 95%)				
Serotype 9N	64.7 (0 to 99999)	19.9 (0 to 99999)	(to)	(to)
Serotype 15A	66.7 (0 to 99999)	35.8 (0 to 99999)	(to)	(to)
Serotype 15C	83.4 (0 to 99999)	74.2 (0 to 99999)	(to)	(to)
Serotype 16F	71.9 (0 to 99999)	20.8 (0 to 99999)	(to)	(to)
Serotype 17F	75.8 (0 to 99999)	9.5 (0 to 99999)	(to)	(to)
Serotype 20A	67.3 (0 to 99999)	9.6 (0 to 99999)	(to)	(to)
Serotype 23A	78.9 (0 to 99999)	36.8 (0 to 99999)	(to)	(to)

Serotype 23B	85.5 (0 to 99999)	49.6 (0 to 99999)	(to)	(to)
Serotype 24F	80.5 (0 to 99999)	6.3 (0 to 99999)	(to)	(to)
Serotype 31	76.5 (0 to 99999)	17.9 (0 to 99999)	(to)	(to)
Serotype 35B	60.0 (0 to 99999)	6.8 (0 to 99999)	(to)	(to)

Notes:

[5] - Per protocol, Cohort 2 were not analyzed in this endpoint.

[6] - Per protocol, Cohort 2 were not analyzed in this endpoint.

Statistical analyses

Statistical analysis title	Serotype 15A
Statistical analysis description: V116-PCV20 Percentage Difference	
Comparison groups	Cohort 1 V116 v Cohort 1 PCV20
Number of subjects included in analysis	2356
Analysis specification	Pre-specified
Analysis type	
P-value	< 0.001 [7]
Method	Stratified Miettinen & Nurminen
Parameter estimate	Percent Difference
Point estimate	30.9
Confidence interval	
level	95 %
sides	2-sided
lower limit	25.8
upper limit	35.8

Notes:

[7] - 1-sided

Statistical analysis title	Serotype 9N
Statistical analysis description: V116-PCV20 Percentage Difference	
Comparison groups	Cohort 1 V116 v Cohort 1 PCV20
Number of subjects included in analysis	2356
Analysis specification	Pre-specified
Analysis type	
P-value	< 0.001 [8]
Method	Stratified Miettinen & Nurminen
Parameter estimate	Percent Difference
Point estimate	44.7
Confidence interval	
level	95 %
sides	2-sided
lower limit	40.7
upper limit	48.6

Notes:

[8] - 1-sided

Statistical analysis title	Serotype 16F
Statistical analysis description: V116-PCV20 Percentage Difference	
Comparison groups	Cohort 1 V116 v Cohort 1 PCV20
Number of subjects included in analysis	2356
Analysis specification	Pre-specified
Analysis type	
P-value	< 0.001 [9]
Method	Stratified Miettinen & Nurminen
Parameter estimate	Percent Difference
Point estimate	51.1
Confidence interval	
level	95 %
sides	2-sided
lower limit	47.1
upper limit	54.9

Notes:
[9] - 1-sided

Statistical analysis title	Serotype 15C
Statistical analysis description: V116-PCV20 Percentage Difference	
Comparison groups	Cohort 1 V116 v Cohort 1 PCV20
Number of subjects included in analysis	2356
Analysis specification	Pre-specified
Analysis type	
P-value	< 0.001 [10]
Method	Stratified Miettinen & Nurminen
Parameter estimate	Percent Difference
Point estimate	9.2
Confidence interval	
level	95 %
sides	2-sided
lower limit	5.6
upper limit	12.9

Notes:
[10] - 1-sided

Statistical analysis title	Serotype24F
Statistical analysis description: V116-PCV20 Percentage Difference	
Comparison groups	Cohort 1 V116 v Cohort 1 PCV20
Number of subjects included in analysis	2356
Analysis specification	Pre-specified
Analysis type	
P-value	< 0.001 [11]
Method	Stratified Miettinen & Nurminen
Parameter estimate	Percent Difference
Point estimate	74.2

Confidence interval	
level	95 %
sides	2-sided
lower limit	71.1
upper limit	77.1

Notes:
[11] - 1-sided

Statistical analysis title	Serotype 31
Statistical analysis description: V116-PCV20 Percentage Difference	
Comparison groups	Cohort 1 V116 v Cohort 1 PCV20
Number of subjects included in analysis	2356
Analysis specification	Pre-specified
Analysis type	
P-value	< 0.001 [12]
Method	Stratified Miettinen & Nurminen
Parameter estimate	Percent Difference
Point estimate	58.6
Confidence interval	
level	95 %
sides	2-sided
lower limit	54.8
upper limit	62.1

Notes:
[12] - 1-sided

Statistical analysis title	Serotype 23B
Statistical analysis description: V116-PCV20 Percentage Difference	
Comparison groups	Cohort 1 V116 v Cohort 1 PCV20
Number of subjects included in analysis	2356
Analysis specification	Pre-specified
Analysis type	
P-value	< 0.001 [13]
Method	Stratified Miettinen & Nurminen
Parameter estimate	Percent Difference
Point estimate	35.9
Confidence interval	
level	95 %
sides	2-sided
lower limit	32.1
upper limit	39.6

Notes:
[13] - 1-sided

Statistical analysis title	Serotype 23A
Statistical analysis description: V116-PCV20 Percentage Difference	
Comparison groups	Cohort 1 V116 v Cohort 1 PCV20

Number of subjects included in analysis	2356
Analysis specification	Pre-specified
Analysis type	
P-value	< 0.001 [14]
Method	Stratified Miettinen & Nurminen
Parameter estimate	Percent Difference
Point estimate	42.2
Confidence interval	
level	95 %
sides	2-sided
lower limit	37.6
upper limit	46.6

Notes:

[14] - 1-sided

Statistical analysis title	Serotype35B
Statistical analysis description: V116-PCV20 Percentage Difference	
Comparison groups	Cohort 1 V116 v Cohort 1 PCV20
Number of subjects included in analysis	2356
Analysis specification	Pre-specified
Analysis type	
P-value	< 0.001 [15]
Method	Stratified Miettinen & Nurminen
Parameter estimate	Percent Difference
Point estimate	53.2
Confidence interval	
level	95 %
sides	2-sided
lower limit	49.6
upper limit	56.6

Notes:

[15] - 1-sided

Statistical analysis title	Serotype 17F
Statistical analysis description: V116-PCV20 Percentage Difference	
Comparison groups	Cohort 1 V116 v Cohort 1 PCV20
Number of subjects included in analysis	2356
Analysis specification	Pre-specified
Analysis type	
P-value	< 0.001 [16]
Method	Stratified Miettinen & Nurminen
Parameter estimate	Percent Difference
Point estimate	66.3
Confidence interval	
level	95 %
sides	2-sided
lower limit	62.8
upper limit	69.6

Notes:
[16] - 1-sided

Statistical analysis title	Serotype 20A
Statistical analysis description:	
V116-PCV20 Percentage Difference	
Comparison groups	Cohort 1 V116 v Cohort 1 PCV20
Number of subjects included in analysis	2356
Analysis specification	Pre-specified
Analysis type	
P-value	< 0.001 [17]
Method	Stratified Miettinen & Nurminen
Parameter estimate	Percent Difference
Point estimate	57.7
Confidence interval	
level	95 %
sides	2-sided
lower limit	54.2
upper limit	61.1

Notes:
[17] - 1-sided

Primary: Serotype specific OPA GMTs in participants 18-49 years and participants 50-64 years for the pneumococcal serotypes contained in V116

End point title	Serotype specific OPA GMTs in participants 18-49 years and participants 50-64 years for the pneumococcal serotypes contained in V116

End point description:

The serotype specific OPA GMTs for the pneumococcal serotypes in participants 18-49 years and participants 50-64 years treated with V116 only were determined using the MOPA. GMT values were estimated from a cLDA model. The 10 common pneumococcal serotypes in both V116 and PCV20 were as follows: 3, 6A, 7F, 8, 10A, 11A, 12F, 19A, 22F, and 33F. The 11 unique pneumococcal serotypes in V116 were as follows: 9N, 15A, 15C, 16F, 17F, 20A, 23A, 23B, 24F, 31, and 35B. 99999 means per protocol, within group CIs, or any other measures of dispersion, were not determined. The population analyzed was all randomized participants from cohort 1 only, without deviations from the protocol that may substantially affect immunogenicity. Deviations include, but are not limited to the following: missing serology results; and blood draw out of window.

End point type	Primary

End point timeframe:
Day 30 post-vaccination

End point values	V116 18 to 49 years old	V116 50 to 64 years old		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	200	589		
Units: Titer				
geometric mean (confidence interval 95%)				
Serotype 3	308.6 (0 to 99999)	282.7 (0 to 99999)		
Serotype 6A	5289.6 (0 to 99999)	2572.9 (0 to 99999)		

Serotype 7F	6447.2 (0 to 99999)	4278.8 (0 to 99999)		
Serotype 8	4516.0 (0 to 99999)	3004.7 (0 to 99999)		
Serotype 9N	17283.2 (0 to 99999)	8791.4 (0 to 99999)		
Serotype 10A	6808.1 (0 to 99999)	4382.6 (0 to 99999)		
Serotype 11A	5871.6 (0 to 99999)	3785.8 (0 to 99999)		
Serotype 12F	6150.4 (0 to 99999)	3561.2 (0 to 99999)		
Serotype 15A	11319.2 (0 to 99999)	5901.2 (0 to 99999)		
Serotype 15C	10194.0 (0 to 99999)	5708.0 (0 to 99999)		
Serotype 16F	8877.0 (0 to 99999)	5720.0 (0 to 99999)		
Serotype 17F	16070.6 (0 to 99999)	10068.0 (0 to 99999)		
Serotype 19A	2773.2 (0 to 99999)	2374.6 (0 to 99999)		
Serotype 20A	13150.0 (0 to 99999)	7562.7 (0 to 99999)		
Serotype 22F	9299.6 (0 to 99999)	4683.6 (0 to 99999)		
Serotype 23A	8848.7 (0 to 99999)	4739.5 (0 to 99999)		
Serotype 23B	2140.1 (0 to 99999)	1420.9 (0 to 99999)		
Serotype 24F	4137.6 (0 to 99999)	3047.2 (0 to 99999)		
Serotype 31	8005.6 (0 to 99999)	3820.7 (0 to 99999)		
Serotype 33F	34805.5 (0 to 99999)	17607.4 (0 to 99999)		
Serotype 35B	13933.4 (0 to 99999)	9053.9 (0 to 99999)		

Statistical analyses

Statistical analysis title	Serotype 3
Statistical analysis description: V116 18-49 years/V116 50-64 years GMT Ratio	
Comparison groups	V116 18 to 49 years old v V116 50 to 64 years old
Number of subjects included in analysis	789
Analysis specification	Pre-specified
Analysis type	
P-value	< 0.001 [18]
Method	LDA model
Parameter estimate	GMT Ratio
Point estimate	1.09

Confidence interval	
level	95 %
sides	2-sided
lower limit	0.9
upper limit	1.33

Notes:

[18] - 1-sided

Statistical analysis title	Serotype 6A

Statistical analysis description:

V116 18-49 years/V116 50-64 years GMT Ratio

Comparison groups	V116 18 to 49 years old v V116 50 to 64 years old
Number of subjects included in analysis	789
Analysis specification	Pre-specified
Analysis type	
P-value	< 0.001 [19]
Method	LDA model
Parameter estimate	GMT Ratio
Point estimate	2.06
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.61
upper limit	2.62

Notes:

[19] - 1-sided

Statistical analysis title	Serotype 7F

Statistical analysis description:

V116 18-49 years/V116 50-64 years GMT Ratio

Comparison groups	V116 18 to 49 years old v V116 50 to 64 years old
Number of subjects included in analysis	789
Analysis specification	Pre-specified
Analysis type	
P-value	< 0.001 [20]
Method	LDA model
Parameter estimate	GMT Ratio
Point estimate	1.51
Confidence interval	
level	Other: 5 %
sides	2-sided
lower limit	1.23
upper limit	1.84

Notes:

[20] - 1-sided

Statistical analysis title	Serotype 8

Statistical analysis description:

V116 18-49 years/V116 50-64 years GMT Ratio

Comparison groups	V116 18 to 49 years old v V116 50 to 64 years old

Number of subjects included in analysis	789
Analysis specification	Pre-specified
Analysis type	
P-value	< 0.001 [21]
Method	LDA model
Parameter estimate	GMT Ratio
Point estimate	1.5
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.26
upper limit	1.79

Notes:

[21] - 1-sided

Statistical analysis title	Serotype 15A
Statistical analysis description:	
V116 18-49 years/V116 50-64 years GMT Ratio	
Comparison groups	V116 18 to 49 years old v V116 50 to 64 years old
Number of subjects included in analysis	789
Analysis specification	Pre-specified
Analysis type	
P-value	< 0.001 [22]
Method	LDA model
Parameter estimate	GMT Ratio
Point estimate	1.92
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.55
upper limit	2.37

Notes:

[22] - 1-sided

Statistical analysis title	Serotype 10A
Statistical analysis description:	
V116 18-49 years/V116 50-64 years GMT Ratio	
Comparison groups	V116 18 to 49 years old v V116 50 to 64 years old
Number of subjects included in analysis	789
Analysis specification	Pre-specified
Analysis type	
P-value	< 0.001 [23]
Method	LDA model
Parameter estimate	GMT Ratio
Point estimate	1.55
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.26
upper limit	1.92

Notes:
[23] - 1-sided

Statistical analysis title	Serotype 11A
Statistical analysis description:	
V116 18-49 years/V116 50-64 years GMT Ratio	
Comparison groups	V116 18 to 49 years old v V116 50 to 64 years old
Number of subjects included in analysis	789
Analysis specification	Pre-specified
Analysis type	
P-value	< 0.001 [24]
Method	LDA model
Parameter estimate	GMT Ratio
Point estimate	1.55
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.26
upper limit	1.91

Notes:
[24] - 1-sided

Statistical analysis title	Serotype 12F
Statistical analysis description:	
V116 18-49 years/V116 50-64 years GMT Ratio	
Comparison groups	V116 18 to 49 years old v V116 50 to 64 years old
Number of subjects included in analysis	789
Analysis specification	Pre-specified
Analysis type	
P-value	< 0.001 [25]
Method	LDA model
Parameter estimate	GMT Ratio
Point estimate	1.73
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.37
upper limit	2.17

Notes:
[25] - 1-sided

Statistical analysis title	Serotype 9N
Statistical analysis description:	
V116 18-49 years/V116 50-64 years GMT Ratio	
Comparison groups	V116 18 to 49 years old v V116 50 to 64 years old

Number of subjects included in analysis	789
Analysis specification	Pre-specified
Analysis type	
P-value	< 0.001 [26]
Method	LDA model
Parameter estimate	GMT Ratio
Point estimate	1.97
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.59
upper limit	2.43

Notes:

[26] - 1-sided

Statistical analysis title	Serotype 15C

Statistical analysis description:

V116 18-49 years/V116 50-64 years GMT Ratio

Comparison groups	V116 18 to 49 years old v V116 50 to 64 years old
Number of subjects included in analysis	789
Analysis specification	Pre-specified
Analysis type	
P-value	< 0.001 [27]
Method	LDA model
Parameter estimate	GMT Ratio
Point estimate	1.79
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.36
upper limit	2.35

Notes:

[27] - 1-sided

Statistical analysis title	Serotype 16F

Statistical analysis description:

V116 18-49 years/V116 50-64 years GMT Ratio

Comparison groups	V116 18 to 49 years old v V116 50 to 64 years old
Number of subjects included in analysis	789
Analysis specification	Pre-specified
Analysis type	
P-value	< 0.001 [28]
Method	LDA model
Parameter estimate	GMT Ratio
Point estimate	1.55
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.26
upper limit	1.91

Notes:
[28] - 1-sided

Statistical analysis title	Serotype 17F
Statistical analysis description:	
V116 18-49 years/V116 50-64 years GMT Ratio	
Comparison groups	V116 18 to 49 years old v V116 50 to 64 years old
Number of subjects included in analysis	789
Analysis specification	Pre-specified
Analysis type	
P-value	< 0.001 [29]
Method	LDA model
Parameter estimate	GMT Ratio
Point estimate	1.6
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.26
upper limit	2.02

Notes:
[29] - 1-sided

Statistical analysis title	Serotype 19A
Statistical analysis description:	
V116 18-49 years/V116 50-64 years GMT Ratio	
Comparison groups	V116 18 to 49 years old v V116 50 to 64 years old
Number of subjects included in analysis	789
Analysis specification	Pre-specified
Analysis type	
P-value	< 0.001 [30]
Method	LDA model
Parameter estimate	GMT Ratio
Point estimate	1.17
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.97
upper limit	1.4

Notes:
[30] - 1-sided

Statistical analysis title	Serotype 20A
Statistical analysis description:	
V116 18-49 years/V116 50-64 years GMT Ratio	
Comparison groups	V116 18 to 49 years old v V116 50 to 64 years old

Number of subjects included in analysis	789
Analysis specification	Pre-specified
Analysis type	
P-value	< 0.001 [31]
Method	LDA model
Parameter estimate	GMT Ratio
Point estimate	1.74
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.39
upper limit	2.18

Notes:

[31] - 1-sided

Statistical analysis title	Serotype 22F

Statistical analysis description:

V116 18-49 years/V116 50-64 years GMT Ratio

Comparison groups	V116 18 to 49 years old v V116 50 to 64 years old
Number of subjects included in analysis	789
Analysis specification	Pre-specified
Analysis type	
P-value	< 0.001 [32]
Method	LDA model
Parameter estimate	GMT Ratio
Point estimate	1.99
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.58
upper limit	2.49

Notes:

[32] - 1-sided

Statistical analysis title	Serotype 23A

Statistical analysis description:

V116 18-49 years/V116 50-64 years GMT Ratio

Comparison groups	V116 18 to 49 years old v V116 50 to 64 years old
Number of subjects included in analysis	789
Analysis specification	Pre-specified
Analysis type	
P-value	< 0.001 [33]
Method	LDA model
Parameter estimate	GMT Ratio
Point estimate	1.87
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.43
upper limit	2.44

Notes:
[33] - 1-sided

Statistical analysis title	Serotype 23B
Statistical analysis description:	
V116 18-49 years/V116 50-64 years GMT Ratio	
Comparison groups	V116 18 to 49 years old v V116 50 to 64 years old
Number of subjects included in analysis	789
Analysis specification	Pre-specified
Analysis type	
P-value	< 0.001 [34]
Method	LDA model
Parameter estimate	GMT Ratio
Point estimate	1.51
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.11
upper limit	2.04

Notes:
[34] - 1-sided

Statistical analysis title	Serotype 24F
Statistical analysis description:	
V116 18-49 years/V116 50-64 years GMT Ratio	
Comparison groups	V116 18 to 49 years old v V116 50 to 64 years old
Number of subjects included in analysis	789
Analysis specification	Pre-specified
Analysis type	
P-value	< 0.001 [35]
Method	LDA model
Parameter estimate	GMT Ratio
Point estimate	1.36
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.1
upper limit	1.67

Notes:
[35] - 1-sided

Statistical analysis title	Serotype 31
Statistical analysis description:	
V116 18-49 years/V116 50-64 years GMT Ratio	
Comparison groups	V116 18 to 49 years old v V116 50 to 64 years old

Number of subjects included in analysis	789
Analysis specification	Pre-specified
Analysis type	
P-value	< 0.001 [36]
Method	LDA model
Parameter estimate	GMT Ratio
Point estimate	2.1
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.63
upper limit	2.69

Notes:

[36] - 1-sided

Statistical analysis title	Serotype 33F

Statistical analysis description:

V116 18-49 years/V116 50-64 years GMT Ratio

Comparison groups	V116 18 to 49 years old v V116 50 to 64 years old
Number of subjects included in analysis	789
Analysis specification	Pre-specified
Analysis type	
P-value	< 0.001 [37]
Method	LDA model
Parameter estimate	GMT Ratio
Point estimate	1.98
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.52
upper limit	2.57

Notes:

[37] - 1-sided

Statistical analysis title	Serotype 35B

Statistical analysis description:

V116 18-49 years/V116 50-64 years GMT Ratio

Comparison groups	V116 18 to 49 years old v V116 50 to 64 years old
Number of subjects included in analysis	789
Analysis specification	Pre-specified
Analysis type	
P-value	< 0.001 [38]
Method	LDA model
Parameter estimate	GMT Ratio
Point estimate	1.54
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.26
upper limit	1.87

Notes:

[38] - 1-sided

Secondary: Percentage of participants from Cohort 1 V116 with ≥4-fold change in OPA responses for cross reactive pneumococcal serotypes

End point title	Percentage of participants from Cohort 1 V116 with ≥4-fold change in OPA responses for cross reactive pneumococcal serotypes

End point description:

The percentage of participants with ≥4-fold rise from baseline was determined for Cohort 1 V116 serotypes 6C and 15B, two serotypes which cross react with PCV20. Point estimate and 95% CI are based on the Clopper-Pearson method. A conclusion of acceptability is based on the lower bound of the 95% CI of the percentages of participants with a ≥4-fold rise from baseline being > 50 percentage points (one-sided p-value < 0.025). The population analyzed was all randomized participants from cohort 1 only, without deviations from the protocol that may substantially affect immunogenicity. Deviations include, but are not limited to the following: missing serology results; and blood draw out of window. Per protocol, participants treated with PCV20, and V116 Cohort 2 were not analyzed in this outcome measure. For arm PCV20: Cohort 1 99999 means per protocol, within group CIs, or any other measures of dispersion, were not determined.

End point type	Secondary

End point timeframe:

Baseline and Day 30 post-vaccination

End point values	Cohort 1 V116	Cohort 1 PCV20	Cohort 2 V116	Cohort 2 PCV20
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	1179	1177[39]	0[40]	0[41]
Units: Percentage of participants				
number (confidence interval 95%)				
Serotype 6C	49.3 (46.0 to 52.6)	0 (0 to 99999)	(to)	(to)
Serotype 15B	64.7 (61.4 to 67.8)	0 (0 to 99999)	(to)	(to)

Notes:

[39] - Per protocol, Cohort 1: PCV20 were not analyzed in this endpoint.

[40] - Per protocol, Cohort 2 were not analyzed in this endpoint.

[41] - Per protocol, Cohort 2 were not analyzed in this endpoint.

Statistical analyses

Statistical analysis title	Serotype 15B

Statistical analysis description:

Serotype 15B

Comparison groups	Cohort 1 V116 v Cohort 1 PCV20
Number of subjects included in analysis	2356
Analysis specification	Pre-specified
Analysis type	
P-value	< 0.001 [42]
Method	Clopper-Pearson method.

Notes:

[42] - 1-sided

Statistical analysis title	Serotype 6C
Statistical analysis description: Serotype 6C	
Comparison groups	Cohort 1 V116 v Cohort 1 PCV20
Number of subjects included in analysis	2356
Analysis specification	Pre-specified
Analysis type	
P-value	= 0.667 [43]
Method	Clopper-Pearson method.

Notes:

[43] - 1-sided

Secondary: Serotype specific OPA GMTs for cross reactive pneumococcal serotypes in adults 50 to 64 years of age from Cohort 1 and adults 18 to 49 years of age from Cohort 2

End point title	Serotype specific OPA GMTs for cross reactive pneumococcal serotypes in adults 50 to 64 years of age from Cohort 1 and adults 18 to 49 years of age from Cohort 2

End point description:

The serotype specific OPA GMTs for the pneumococcal serotypes in participants 18-49 years and participants 50-64 years treated with V116 only were determined using the MOPA for serotypes 6C and 15B which cross react with PCV20. GMT values were estimated from a LDA model. 99999 means per protocol, within group CIs, or any other measures of dispersion, were not determined. The population analyzed was all randomized participants from cohort 1 only, without deviations from the protocol that may substantially affect immunogenicity. Deviations include, but are not limited to the following: missing serology results; and blood draw out of window.

End point type	Secondary

End point timeframe:

Day 30 post-vaccination

End point values	V116 18 to 49 years old	V116 50 to 64 years old		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	200	589		
Units: Titer				
geometric mean (confidence interval 95%)				
6C	2577.2 (0 to 99999)	1254.7 (0 to 99999)		
15B	10976.7 (0 to 99999)	5438.9 (0 to 99999)		

Statistical analyses

Statistical analysis title	Serotype 15B
Statistical analysis description: V116 18-49 years/V116 50-64 years GMT ratio	
Comparison groups	V116 18 to 49 years old v V116 50 to 64 years old

Number of subjects included in analysis	789
Analysis specification	Pre-specified
Analysis type	
P-value	< 0.001 [44]
Method	LDA model
Parameter estimate	GMT
Point estimate	2.02
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.57
upper limit	2.6

Notes:

[44] - 1-sided

Statistical analysis title	Serotype 6C

Statistical analysis description:

V116 18-49 years/V116 50-64 years GMT Ratio

Comparison groups	V116 18 to 49 years old v V116 50 to 64 years old
Number of subjects included in analysis	789
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMT Ratio
Point estimate	2.05
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.52
upper limit	2.77

Secondary: Serotype specific Immunoglobulin (IgG) geometric mean concentrations (GMCs) in Cohort 1 only, for the pneumococcal serotypes contained in V116 and PCV20

End point title	Serotype specific Immunoglobulin (IgG) geometric mean concentrations (GMCs) in Cohort 1 only, for the pneumococcal serotypes contained in V116 and PCV20

End point description:

The serotype specific IgG GMCs for the pneumococcal serotypes in cohort 1 of V116 and PCV20 only were determined using pneumococcal electrochemiluminescence (PnECL). GMC values were estimated from a cLDA model. Per protocol, within group CIs or any other measures of dispersion were not planned or determined. The 10 common pneumococcal serotypes in both V116 and PCV20 were as follows: 3, 6A, 7F, 8, 10A, 11A, 12F, 19A, 22F, and 33F. The 11 unique pneumococcal serotypes in V116 were as follows: 9N, 15A, 15C, 16F, 17F, 20A, 23A, 23B, 24F, 31, and 35B. 99999 means per protocol, within group CIs, or any other measures of dispersion, were not determined. The population analyzed was all randomized participants from cohort 1 only, without deviations from the protocol that may substantially affect immunogenicity. Deviations include, but are not limited to the following: missing serology results; and blood draw out of window.

End point type	Secondary

End point timeframe:

Day 30 post-vaccination

End point values	Cohort 1 V116	Cohort 1 PCV20	Cohort 2 V116	Cohort 2 PCV20
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	1179	1177	0[45]	0[46]
Units: µg/mL				
geometric mean (confidence interval 95%)				
Serotype 3	0.78 (0 to 99999)	0.53 (0 to 99999)	(to)	(to)
Serotype 6A	4.30 (0 to 99999)	5.45 (0 to 99999)	(to)	(to)
Serotype 7F	6.97 (0 to 99999)	6.57 (0 to 99999)	(to)	(to)
Serotype 8	10.02 (0 to 99999)	7.00 (0 to 99999)	(to)	(to)
Serotype 10A	11.98 (0 to 99999)	14.66 (0 to 99999)	(to)	(to)
Serotype 11A	7.20 (0 to 99999)	5.87 (0 to 99999)	(to)	(to)
Serotype 12F	1.73 (0 to 99999)	1.57 (0 to 99999)	(to)	(to)
Serotype 19A	8.39 (0 to 99999)	12.02 (0 to 99999)	(to)	(to)
Serotype 22F	4.39 (0 to 99999)	5.48 (0 to 99999)	(to)	(to)
Serotype 33F	13.81 (0 to 99999)	13.02 (0 to 99999)	(to)	(to)
Serotype 9N	7.72 (0 to 99999)	1.43 (0 to 99999)	(to)	(to)
Serotype15A	13.88 (0 to 99999)	2.04 (0 to 99999)	(to)	(to)
Serotype 15C	12.39 (0 to 99999)	5.04 (0 to 99999)	(to)	(to)
Serotype 16F	2.86 (0 to 99999)	0.33 (0 to 99999)	(to)	(to)
Serotype 17F	14.16 (0 to 99999)	0.84 (0 to 99999)	(to)	(to)
Serotype 20A	19.03 (0 to 99999)	1.47 (0 to 99999)	(to)	(to)
Serotype 23A	3.78 (0 to 99999)	0.59 (0 to 99999)	(to)	(to)
Serotype 23B	5.13 (0 to 99999)	1.58 (0 to 99999)	(to)	(to)
Serotype 24F	6.87 (0 to 99999)	0.33 (0 to 99999)	(to)	(to)
Serotype 31	3.07 (0 to 99999)	0.27 (0 to 99999)	(to)	(to)
Serotype 35B	19.98 (0 to 99999)	1.41 (0 to 99999)	(to)	(to)

Notes:

[45] - Per protocol, Cohort 2 were not analyzed in this endpoint.

[46] - Per protocol, Cohort 2 were not analyzed in this endpoint.

Statistical analyses

Statistical analysis title	Serotype 7F
Statistical analysis description: V116/PCV20 GMC Ratio	
Comparison groups	Cohort 1 V116 v Cohort 1 PCV20
Number of subjects included in analysis	2356
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	1.06
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.95
upper limit	1.18

Statistical analysis title	Serotype 6A
Statistical analysis description: V116/PCV20 GMC Ratio	
Comparison groups	Cohort 1 V116 v Cohort 1 PCV20
Number of subjects included in analysis	2356
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	0.79
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.7
upper limit	0.89

Statistical analysis title	Serotype 3
Statistical analysis description: V116/PCV20 GMC Ratio	
Comparison groups	Cohort 1 V116 v Cohort 1 PCV20
Number of subjects included in analysis	2356
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	1.47
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.35
upper limit	1.6

Statistical analysis title	Serotype 8
Statistical analysis description: V116/PCV20 GMC Ratio	
Comparison groups	Cohort 1 V116 v Cohort 1 PCV20
Number of subjects included in analysis	2356
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	1.43
Confidence interval	
level	95 %
sides	2-sided
lower limit	1.29
upper limit	1.59

Statistical analysis title	Serotype 10A
Statistical analysis description: V116/PCV20 GMC Ratio	
Comparison groups	Cohort 1 V116 v Cohort 1 PCV20
Number of subjects included in analysis	2356
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	0.82
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.72
upper limit	0.92

Statistical analysis title	Serotype 11A
Statistical analysis description: V116/PCV20 GMC Ratio	
Comparison groups	Cohort 1 V116 v Cohort 1 PCV20
Number of subjects included in analysis	2356
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	1.23

Confidence interval	
level	95 %
sides	2-sided
lower limit	1.11
upper limit	1.36

Statistical analysis title	Serotype 12F
Statistical analysis description: V116/PCV20 GMC Ratio	
Comparison groups	Cohort 1 V116 v Cohort 1 PCV20
Number of subjects included in analysis	2356
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	1.1
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.96
upper limit	1.26

Statistical analysis title	Serotype 33F
Statistical analysis description: V116/PCV20 GMC Ratio	
Comparison groups	Cohort 1 V116 v Cohort 1 PCV20
Number of subjects included in analysis	2356
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	1.06
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.95
upper limit	1.18

Statistical analysis title	Serotype 22F
Statistical analysis description: V116/PCV20 GMC Ratio	
Comparison groups	Cohort 1 V116 v Cohort 1 PCV20

Number of subjects included in analysis	2356
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	0.8
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.72
upper limit	0.9

Statistical analysis title	Serotype 19A
Statistical analysis description: V116/PCV20 GMC Ratio	
Comparison groups	Cohort 1 V116 v Cohort 1 PCV20
Number of subjects included in analysis	2356
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	0.7
Confidence interval	
level	95 %
sides	2-sided
lower limit	0.63
upper limit	0.77

Statistical analysis title	Serotype 9N
Statistical analysis description: V116/PCV20 GMC Ratio	
Comparison groups	Cohort 1 V116 v Cohort 1 PCV20
Number of subjects included in analysis	2356
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	5.41
Confidence interval	
level	95 %
sides	2-sided
lower limit	4.82
upper limit	6.06

Statistical analysis title	Serotype 15A
Statistical analysis description: V116/PCV20 GMC Ratio	

Comparison groups	Cohort 1 V116 v Cohort 1 PCV20
Number of subjects included in analysis	2356
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	6.79
Confidence interval	
level	95 %
sides	2-sided
lower limit	6.03
upper limit	7.64

Statistical analysis title	Serotype 15C
Statistical analysis description: V116/PCV20 GMC Ratio	
Comparison groups	Cohort 1 V116 v Cohort 1 PCV20
Number of subjects included in analysis	2356
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	2.46
Confidence interval	
level	95 %
sides	2-sided
lower limit	2.17
upper limit	2.79

Statistical analysis title	Serotype 16F
Statistical analysis description: V116/PCV20 GMC Ratio	
Comparison groups	Cohort 1 V116 v Cohort 1 PCV20
Number of subjects included in analysis	2356
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	8.75
Confidence interval	
level	95 %
sides	2-sided
lower limit	7.95
upper limit	9.64

Statistical analysis title	Serotype 17F

Statistical analysis description: V116/PCV20 GMC Ratio	
Comparison groups	Cohort 1 V116 v Cohort 1 PCV20
Number of subjects included in analysis	2356
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	16.75
Confidence interval	
level	95 %
sides	2-sided
lower limit	15.25
upper limit	18.41

Statistical analysis title	Serotype 20A
Statistical analysis description: V116/PCV20 GMC Ratio	
Comparison groups	Cohort 1 V116 v Cohort 1 PCV20
Number of subjects included in analysis	2356
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	12.92
Confidence interval	
level	95 %
sides	2-sided
lower limit	11.81
upper limit	14.13

Statistical analysis title	Serotype 23A
Statistical analysis description: V116/PCV20 GMC Ratio	
Comparison groups	Cohort 1 V116 v Cohort 1 PCV20
Number of subjects included in analysis	2356
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	6.42
Confidence interval	
level	95 %
sides	2-sided
lower limit	5.69
upper limit	7.24

Statistical analysis title	Serotype 23B
Statistical analysis description: V116/PCV20 GMC Ratio	
Comparison groups	Cohort 1 V116 v Cohort 1 PCV20
Number of subjects included in analysis	2356
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	3.25
Confidence interval	
level	95 %
sides	2-sided
lower limit	2.91
upper limit	3.64

Statistical analysis title	Serotype 24F
Statistical analysis description: V116/PCV20 GMC Ratio	
Comparison groups	Cohort 1 V116 v Cohort 1 PCV20
Number of subjects included in analysis	2356
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	21.08
Confidence interval	
level	Other: 85 %
sides	2-sided
lower limit	18.97
upper limit	23.43

Statistical analysis title	Serotype 31
Statistical analysis description: V116/PCV20 GMC Ratio	
Comparison groups	Cohort 1 V116 v Cohort 1 PCV20
Number of subjects included in analysis	2356
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	11.31
Confidence interval	
level	95 %
sides	2-sided
lower limit	10.36
upper limit	12.34

Statistical analysis title	Serotype 35B
Statistical analysis description: V116/PCV20 GMC Ratio	
Comparison groups	Cohort 1 V116 v Cohort 1 PCV20
Number of subjects included in analysis	2356
Analysis specification	Pre-specified
Analysis type	
Parameter estimate	GMC Ratio
Point estimate	14.13
Confidence interval	
level	95 %
sides	2-sided
lower limit	12.97
upper limit	15.4

Secondary: Geometric mean fold change from baseline in OPA GMTs in Cohort 1 for the pneumococcal serotypes contained in V116 and PCV20

End point title	Geometric mean fold change from baseline in OPA GMTs in Cohort 1 for the pneumococcal serotypes contained in V116 and PCV20

End point description:

The geometric mean fold rise (GMFR) from baseline in serotype specific OPA GMTs for cohort 1 was determined using MOPA. The within-group 95% CIs were obtained by exponentiating the CIs of the mean of the natural log values based on the t-distribution. The 10 common pneumococcal serotypes in both V116 and PCV20 were as follows: 3, 6A, 7F, 8, 10A, 11A, 12F, 19A, 22F, and 33F. The 11 unique pneumococcal serotypes in V116 were as follows: 9N, 15A, 15C, 16F, 17F, 20A, 23A, 23B, 24F, 31, and 35B. Per protocol, Cohort 2 were not analyzed in this outcome measure.

End point type	Secondary

End point timeframe:

Baseline and Day 30 post-vaccination

End point values	Cohort 1 V116	Cohort 1 PCV20	Cohort 2 V116	Cohort 2 PCV20
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	1179	1177	0[47]	0[48]
Units: GMFR				
geometric mean (confidence interval 95%)				
Serotype 3	8.4 (7.7 to 9.1)	5.4 (5.0 to 5.8)	(to)	(to)
Serotype 6A	18.1 (16.2 to 20.2)	22.6 (20.1 to 25.5)	(to)	(to)
Serotype 7F	16.5 (14.4 to 18.8)	14.7 (12.9 to 16.8)	(to)	(to)
Serotype 8	22.0 (19.3 to 25.0)	14.2 (12.5 to 16.2)	(to)	(to)
Serotype 10A	16.7 (14.8 to 18.9)	20.8 (18.3 to 23.8)	(to)	(to)

Serotype11A	17.4 (15.1 to 20.0)	11.6 (10.1 to 13.3)	(to)	(to)
Serotype 12F	77.4 (68.5 to 87.4)	73.5 (64.8 to 83.4)	(to)	(to)
Serotype 19A	8.6 (7.7 to 9.5)	11.0 (9.9 to 12.2)	(to)	(to)
Serotype 22F	19.1 (16.6 to 22.1)	25.5 (21.9 to 29.8)	(to)	(to)
Serotype 33F	9.9 (8.9 to 11.1)	8.5 (7.6 to 9.5)	(to)	(to)
Serotype 9N	8.9 (8.0 to 9.9)	2.0 (1.9 to 2.2)	(to)	(to)
Serotype 15A	9.4 (8.2 to 10.8)	3.1 (2.7 to 3.5)	(to)	(to)
Serotype 15C	38.0 (33.3 to 43.3)	20.3 (17.8 to 23.1)	(to)	(to)
Serotype 16F	9.5 (8.7 to 10.4)	1.9 (1.7 to 2.0)	(to)	(to)
Serotype 17F	17.3 (15.3 to 19.7)	1.2 (1.1 to 1.3)	(to)	(to)
Serotype 20A	10.3 (9.2 to 11.4)	1.2 (1.1 to 1.2)	(to)	(to)
Serotype 23A	21.8 (19.0 to 25.0)	3.1 (2.7 to 3.6)	(to)	(to)
Serotype 23B	51.4 (45.3 to 58.2)	6.1 (5.4 to 6.9)	(to)	(to)
Serotype 24F	29.0 (25.6 to 32.8)	1.1 (1.0 to 1.1)	(to)	(to)
Serotype 31	28.7 (24.9 to 33.1)	1.5 (1.4 to 1.7)	(to)	(to)
Serotype 35B	7.2 (6.5 to 7.9)	1.2 (1.1 to 1.2)	(to)	(to)

Notes:

[47] - Per protocol Cohort 2 was not analyzed for this endpoint.

[48] - Per protocol Cohort 2 was not analyzed for this endpoint.

Statistical analyses

No statistical analyses for this end point

Secondary: Geometric mean fold change from baseline in IgG antibody GMCs in Cohort 1 for the pneumococcal serotypes contained in V116 and PCV20

End point title	Geometric mean fold change from baseline in IgG antibody GMCs in Cohort 1 for the pneumococcal serotypes contained in V116 and PCV20

End point description:

The GMFR from baseline in serotype specific IgG antibody GMCs for cohort 1 was determined using PnECL. The within-group 95% CIs were obtained by exponentiating the CIs of the mean of the natural log values based on the t-distribution. The 10 common pneumococcal serotypes in both V116 and PCV20 were as follows: 3, 6A, 7F, 8, 10A, 11A, 12F, 19A, 22F, and 33F. The 11 unique pneumococcal serotypes in V116 were as follows: 9N, 15A, 15C, 16F, 17F, 20A, 23A, 23B, 24F, 31, and 35B. Per protocol, Cohort 2 were not analyzed in this outcome measure.

End point type	Secondary

End point timeframe:

Baseline and Day 30 post-vaccination

End point values	Cohort 1 V116	Cohort 1 PCV20	Cohort 2 V116	Cohort 2 PCV20
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	1179	1177	0[49]	0[50]
Units: GMFR				
geometric mean (confidence interval 95%)				
Serotype 3	5.1 (4.8 to 5.4)	3.5 (3.3 to 3.7)	(to)	(to)
Serotype 6A	12.2 (11.1 to 13.5)	15.1 (13.8 to 16.6)	(to)	(to)
Serotype 7F	12.5 (11.5 to 13.7)	12.2 (11.2 to 13.4)	(to)	(to)
Serotype 8	12.6 (11.5 to 13.8)	8.8 (8.0 to 9.6)	(to)	(to)
Serotype 10A	15.4 (14.1 to 16.9)	19.2 (17.4 to 21.1)	(to)	(to)
Serotype 11A	8.7 (8.1 to 9.5)	7.1 (6.5 to 7.7)	(to)	(to)
Serotype 12F	13.1 (11.8 to 14.4)	12.1 (11.0 to 13.5)	(to)	(to)
Serotype 19A	5.4 (5.0 to 5.8)	7.7 (7.1 to 8.4)	(to)	(to)
Serotype 22F	12.7 (11.6 to 13.9)	16.3 (14.8 to 17.9)	(to)	(to)
Serotype 33F	9.6 (8.8 to 10.5)	9.1 (8.3 to 9.9)	(to)	(to)
Serotype 9N	15.0 (13.6 to 16.5)	2.7 (2.5 to 2.9)	(to)	(to)
Serotype 15A	22.3 (20.3 to 24.4)	3.4 (3.1 to 3.7)	(to)	(to)
Serotype 15C	19.8 (17.9 to 21.8)	8.2 (7.4 to 9.0)	(to)	(to)
Serotype 16F	13.3 (12.3 to 14.4)	1.6 (1.5 to 1.7)	(to)	(to)
Serotype 17F	19.8 (18.0 to 21.7)	1.2 (1.1 to 1.3)	(to)	(to)
Serotype 20A	11.7 (10.8 to 12.8)	0.9 (0.9 to 1.0)	(to)	(to)
Serotype 23A	17.8 (16.3 to 19.5)	2.9 (2.6 to 3.1)	(to)	(to)
Serotype 23B	12.1 (11.1 to 13.3)	3.8 (3.5 to 4.1)	(to)	(to)
Serotype 24F	21.2 (19.3 to 23.4)	1.1 (1.0 to 1.1)	(to)	(to)
Serotype 31	13.0 (12.0 to 14.0)	1.2 (1.2 to 1.3)	(to)	(to)
Serotype 35B	14.7 (13.6 to 16.0)	1.0 (1.0 to 1.1)	(to)	(to)

Notes:

[49] - Per protocol Cohort 2 was not analyzed for this endpoint.

[50] - Per protocol Cohort 2 was not analyzed for this endpoint.

Statistical analyses

No statistical analyses for this end point

Secondary: Percentage of participants with ≥4-fold change from baseline in IgG antibody GMCs in Cohort 1 for the pneumococcal serotypes contained in V116 and PCV20

End point title	Percentage of participants with ≥4-fold change from baseline in IgG antibody GMCs in Cohort 1 for the pneumococcal serotypes

	contained in V116 and PCV20

End point description:

Percentage of participants with ≥4-fold rise from baseline in serotype specific IgG antibody GMCs for cohort 1 was determined using PnECL. The within-group 95% CIs were based on the exact binomial method proposed by Clopper and Pearson. The 10 common pneumococcal serotypes in both V116 and PCV20 were as follows: 3, 6A, 7F, 8, 10A, 11A, 12F, 19A, 22F, and 33F. The 11 unique pneumococcal serotypes in V116 were as follows: 9N, 15A, 15C, 16F, 17F, 20A, 23A, 23B, 24F, 31, and 35B. Per protocol, Cohort 2 were not analyzed in this outcome measure.

End point type	Secondary

End point timeframe:

Baseline and Day 30 post-vaccination

End point values	Cohort 1 V116	Cohort 1 PCV20	Cohort 2 V116	Cohort 2 PCV20
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	1179	1177	0[51]	0[52]
Units: Percentage of participants				
number (confidence interval 95%)				
Serotype 3	56.5 (53.5 to 59.4)	41.0 (38.0 to 44.0)	(to)	(to)
Serotype 6A	73.1 (70.4 to 75.7)	79.7 (77.2 to 82.1)	(to)	(to)
Serotype 7F	76.4 (73.8 to 78.9)	75.8 (73.2 to 78.4)	(to)	(to)
Serotype 8	75.8 (73.1 to 78.3)	67.8 (64.9 to 70.6)	(to)	(to)
Serotype 10A	80.3 (77.8 to 82.6)	82.0 (79.5 to 84.2)	(to)	(to)
Serotype 11A	71.1 (68.4 to 73.8)	62.7 (59.8 to 65.6)	(to)	(to)
Serotype 12F	74.2 (71.5 to 76.7)	71.4 (68.6 to 74.1)	(to)	(to)
Serotype 19A	55.6 (52.6 to 58.5)	65.0 (62.0 to 67.8)	(to)	(to)
Serotype 22F	76.8 (74.2 to 79.3)	78.5 (76.0 to 81.0)	(to)	(to)
Serotype 33F	71.6 (68.8 to 74.2)	66.7 (63.8 to 69.6)	(to)	(to)
Serotype 9N	77.9 (75.3 to 80.3)	29.4 (26.7 to 32.2)	(to)	(to)
Serotype 15A	85.7 (83.5 to 87.8)	37.7 (34.8 to 40.7)	(to)	(to)
Serotype 15C	81.4 (78.9 to 83.6)	63.2 (60.2 to 66.1)	(to)	(to)
Serotype 16F	81.4 (78.9 to 83.6)	11.8 (10.0 to 13.9)	(to)	(to)
Serotype 17F	84.5 (82.2 to 86.6)	4.3 (3.1 to 5.7)	(to)	(to)
Serotype 20A	74.7 (72.1 to 77.3)	1.3 (0.7 to 2.2)	(to)	(to)
Serotype 23A	85.5 (83.3 to 87.6)	29.4 (26.7 to 32.2)	(to)	(to)
Serotype 23B	76.1 (73.4 to 78.6)	42.2 (39.3 to 45.2)	(to)	(to)
Serotype 24F	84.0 (81.7 to 86.1)	2.3 (1.5 to 3.4)	(to)	(to)

Serotype 31	81.1 (78.6 to 83.4)	3.9 (2.8 to 5.2)	(to)	(to)
Serotype 35B	83.1 (80.8 to 85.3)	3.3 (2.3 to 4.5)	(to)	(to)

Notes:

[51] - Per protocol Cohort 2 was not analyzed for this endpoint.

[52] - Per protocol Cohort 2 was not analyzed for this endpoint.

Statistical analyses

No statistical analyses for this end point

Secondary: Percentage of participants with ≥4-fold change from baseline in OPA GMTs in Cohort 1 for the pneumococcal serotypes contained in V116 and PCV20

End point title	Percentage of participants with ≥4-fold change from baseline in OPA GMTs in Cohort 1 for the pneumococcal serotypes contained in V116 and PCV20

End point description:

Percentage of participants with ≥4-fold rise from baseline in OPA GMTs in Cohort 1 was determined using MOPA. The within-group 95% CIs were based on the exact binomial method proposed by Clopper and Pearson. The 10 common pneumococcal serotypes in both V116 and PCV20 were as follows: 3, 6A, 7F, 8, 10A, 11A, 12F, 19A, 22F, and 33F. The 11 unique pneumococcal serotypes in V116 were as follows: 9N, 15A, 15C, 16F, 17F, 20A, 23A, 23B, 24F, 31, and 35B. Per protocol, Cohort 2 were not analyzed in this outcome measure.

End point type	Secondary

End point timeframe:

Baseline and Day 30 post-vaccination

End point values	Cohort 1 V116	Cohort 1 PCV20	Cohort 2 V116	Cohort 2 PCV20
Subject group type	Reporting group	Reporting group	Reporting group	Reporting group
Number of subjects analysed	1179	1177	0[53]	0[54]
Units: Percentage of participants				
number (confidence interval 95%)				
Serotype 3	71.3 (68.4 to 74.2)	59.1 (55.9 to 62.3)	(to)	(to)
Serotype 6A	76.8 (74.0 to 79.5)	79.9 (77.2 to 82.4)	(to)	(to)
Serotype 7F	71.0 (68.1 to 73.9)	65.9 (62.8 to 68.9)	(to)	(to)
Serotype 8	75.8 (73.0 to 78.4)	67.4 (64.3 to 70.3)	(to)	(to)
Serotype 10A	71.9 (69.0 to 74.6)	74.1 (71.3 to 76.9)	(to)	(to)
Serotype11A	70.0 (66.9 to 73.0)	61.5 (58.2 to 64.7)	(to)	(to)
Serotype 12F	89.0 (87.0 to 90.9)	87.1 (84.9 to 89.1)	(to)	(to)
Serotype 19A	64.4 (61.3 to 67.3)	70.2 (67.2 to 73.0)	(to)	(to)
Serotype 22F	70.5 (67.5 to 73.4)	74.4 (71.5 to 77.2)	(to)	(to)
Serotype 33F	67.7 (64.6 to 70.7)	61.5 (58.3 to 64.6)	(to)	(to)
Serotype 9N	64.7 (61.5 to 67.8)	19.9 (17.5 to 22.6)	(to)	(to)

Serotype 15A	66.7 (63.0 to 70.2)	35.8 (32.3 to 39.5)	(to)	(to)
Serotype 15C	83.4 (80.9 to 85.7)	74.2 (71.2 to 76.9)	(to)	(to)
Serotype 16F	71.9 (68.8 to 74.8)	20.8 (18.3 to 23.5)	(to)	(to)
Serotype 17F	75.8 (72.7 to 78.6)	9.5 (7.7 to 11.5)	(to)	(to)
Serotype 20A	67.3 (64.3 to 70.2)	9.6 (7.8 to 11.6)	(to)	(to)
Serotype 23A	78.9 (75.8 to 81.7)	36.8 (33.3 to 40.4)	(to)	(to)
Serotype 23B	85.5 (83.2 to 87.6)	49.6 (46.4 to 52.7)	(to)	(to)
Serotype 24F	80.5 (77.8 to 83.0)	6.3 (4.8 to 8.1)	(to)	(to)
Serotype 31	76.5 (73.6 to 79.3)	17.9 (15.5 to 20.5)	(to)	(to)
Serotype 35B	60.0 (56.7 to 63.2)	6.8 (5.3 to 8.5)	(to)	(to)

Notes:

[53] - Per protocol Cohort 2 was not analyzed for this endpoint.

[54] - Per protocol Cohort 2 was not analyzed for this endpoint.

Statistical analyses

No statistical analyses for this end point

Adverse events

Adverse events information

Timeframe for reporting adverse events:

All-cause mortality (ACM): Randomization up to 194 days post-vaccination. Serous adverse events (SAEs): Treatment (Day 1) up to 194 days post-vaccination. Non-serious AEs (NSAEs): Treatment (Day 1) up to 30 days post-vaccination.

Adverse event reporting additional description:

ACM for Cohorts 1 and 2: randomized participants. ACM for Unplanned arm: participants randomized to both V116 and PCV20. The SAE and NSAE for Cohorts 1 and 2 was the APaT. The SAEs and NSAEs for the Unplanned arm: participants excluded from the APaT. ACMs or AEs for the Unplanned arm were reported as zero due to the risk of identification..

Assessment type	Systematic

Dictionary used

Dictionary name	MedDRA
Dictionary version	26.0

Reporting groups

Reporting group title	Cohort 1: V116

Reporting group description:

Pneumococcal vaccine-naïve adult participants (≥50 years of age) receive a single dose of V116 on Day 1.

Reporting group title	Cohort 1: PCV20

Reporting group description:

Pneumococcal vaccine-naïve adult participants (≥50 years of age) receive a single dose of PCV20 on Day 1.

Reporting group title	Unplanned Participants

Reporting group description:

Participants with unplanned randomization and unplanned treatment with both V116 and PCV20.

Reporting group title	Cohort 2: PCV20

Reporting group description:

Pneumococcal vaccine-naïve adult participants (18 to 49 years of age) receive a single dose of PCV20 on Day 1.

Reporting group title	Cohort 2: V116

Reporting group description:

Pneumococcal vaccine-naïve adult participants (18 to 49 years of age) receive a single dose of V116 on Day 1.

Serious adverse events	Cohort 1: V116	Cohort 1: PCV20	Unplanned Participants
Total subjects affected by serious adverse events			
subjects affected / exposed	19 / 1177 (1.61%)	24 / 1175 (2.04%)	0 / 2 (0.00%)
number of deaths (all causes)	4	2	0
number of deaths resulting from adverse events	4	2	0
Neoplasms benign, malignant and unspecified (incl cysts and polyps)			
Rectal adenocarcinoma			

subjects affected / exposed	1 / 1177 (0.08%)	0 / 1175 (0.00%)	0 / 2 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Prostate cancer			
subjects affected / exposed	0 / 1177 (0.00%)	1 / 1175 (0.09%)	0 / 2 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Invasive ductal breast carcinoma			
subjects affected / exposed	1 / 1177 (0.08%)	0 / 1175 (0.00%)	0 / 2 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
General disorders and administration site conditions			
Non-cardiac chest pain			
subjects affected / exposed	0 / 1177 (0.00%)	1 / 1175 (0.09%)	0 / 2 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Immune system disorders			
Drug hypersensitivity			
subjects affected / exposed	0 / 1177 (0.00%)	1 / 1175 (0.09%)	0 / 2 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Respiratory, thoracic and mediastinal disorders			
Acute respiratory failure			
subjects affected / exposed	1 / 1177 (0.08%)	0 / 1175 (0.00%)	0 / 2 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Dyspnoea			
subjects affected / exposed	1 / 1177 (0.08%)	0 / 1175 (0.00%)	0 / 2 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Psychiatric disorders			
Alcohol withdrawal syndrome			

subjects affected / exposed	0 / 1177 (0.00%)	1 / 1175 (0.09%)	0 / 2 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Alcoholism			
subjects affected / exposed	1 / 1177 (0.08%)	0 / 1175 (0.00%)	0 / 2 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Delirium tremens			
subjects affected / exposed	1 / 1177 (0.08%)	0 / 1175 (0.00%)	0 / 2 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Product issues			
Device occlusion			
subjects affected / exposed	1 / 1177 (0.08%)	0 / 1175 (0.00%)	0 / 2 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Injury, poisoning and procedural complications			
Brain contusion			
subjects affected / exposed	0 / 1177 (0.00%)	1 / 1175 (0.09%)	0 / 2 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Upper limb fracture			
subjects affected / exposed	1 / 1177 (0.08%)	0 / 1175 (0.00%)	0 / 2 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Lower limb fracture			
subjects affected / exposed	0 / 1177 (0.00%)	0 / 1175 (0.00%)	0 / 2 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Hip fracture			
subjects affected / exposed	0 / 1177 (0.00%)	1 / 1175 (0.09%)	0 / 2 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0

Cardiac disorders			
Myocardial infarction			
subjects affected / exposed	1 / 1177 (0.08%)	4 / 1175 (0.34%)	0 / 2 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 4	0 / 0
deaths causally related to treatment / all	0 / 1	0 / 0	0 / 0
Coronary artery embolism			
subjects affected / exposed	0 / 1177 (0.00%)	1 / 1175 (0.09%)	0 / 2 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Cardiac arrest			
subjects affected / exposed	1 / 1177 (0.08%)	1 / 1175 (0.09%)	0 / 2 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 1	0 / 0
Nervous system disorders			
Cerebrovascular accident			
subjects affected / exposed	2 / 1177 (0.17%)	0 / 1175 (0.00%)	0 / 2 (0.00%)
occurrences causally related to treatment / all	0 / 2	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 1	0 / 0	0 / 0
Encephalopathy			
subjects affected / exposed	0 / 1177 (0.00%)	1 / 1175 (0.09%)	0 / 2 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Dizziness			
subjects affected / exposed	1 / 1177 (0.08%)	0 / 1175 (0.00%)	0 / 2 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Radial nerve palsy			
subjects affected / exposed	0 / 1177 (0.00%)	1 / 1175 (0.09%)	0 / 2 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Hepatic encephalopathy			
subjects affected / exposed	1 / 1177 (0.08%)	0 / 1175 (0.00%)	0 / 2 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 1	0 / 0	0 / 0

Ischaemic stroke			
subjects affected / exposed	0 / 1177 (0.00%)	1 / 1175 (0.09%)	0 / 2 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Metabolic encephalopathy			
subjects affected / exposed	0 / 1177 (0.00%)	1 / 1175 (0.09%)	0 / 2 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Ear and labyrinth disorders			
Vertigo			
subjects affected / exposed	0 / 1177 (0.00%)	1 / 1175 (0.09%)	0 / 2 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Gastrointestinal disorders			
Abdominal pain			
subjects affected / exposed	0 / 1177 (0.00%)	1 / 1175 (0.09%)	0 / 2 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Abdominal pain upper			
subjects affected / exposed	1 / 1177 (0.08%)	0 / 1175 (0.00%)	0 / 2 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Colitis			
subjects affected / exposed	0 / 1177 (0.00%)	1 / 1175 (0.09%)	0 / 2 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Duodenal ulcer perforation			
subjects affected / exposed	1 / 1177 (0.08%)	0 / 1175 (0.00%)	0 / 2 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Small intestinal obstruction			
subjects affected / exposed	0 / 1177 (0.00%)	1 / 1175 (0.09%)	0 / 2 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0

Oral mucosa erosion			
subjects affected / exposed	1 / 1177 (0.08%)	0 / 1175 (0.00%)	0 / 2 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Jejunal perforation			
subjects affected / exposed	0 / 1177 (0.00%)	0 / 1175 (0.00%)	0 / 2 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Inguinal hernia			
subjects affected / exposed	1 / 1177 (0.08%)	0 / 1175 (0.00%)	0 / 2 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Hepatobiliary disorders			
Subcapsular hepatic haematoma			
subjects affected / exposed	1 / 1177 (0.08%)	0 / 1175 (0.00%)	0 / 2 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Hepatic necrosis			
subjects affected / exposed	1 / 1177 (0.08%)	0 / 1175 (0.00%)	0 / 2 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Hepatic cirrhosis			
subjects affected / exposed	1 / 1177 (0.08%)	0 / 1175 (0.00%)	0 / 2 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 1	0 / 0	0 / 0
Renal and urinary disorders			
Acute kidney injury			
subjects affected / exposed	0 / 1177 (0.00%)	1 / 1175 (0.09%)	0 / 2 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Nephrolithiasis			
subjects affected / exposed	1 / 1177 (0.08%)	1 / 1175 (0.09%)	0 / 2 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0

Musculoskeletal and connective tissue disorders			
Lumbar spinal stenosis			
subjects affected / exposed	0 / 1177 (0.00%)	1 / 1175 (0.09%)	0 / 2 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Osteoarthritis			
subjects affected / exposed	1 / 1177 (0.08%)	0 / 1175 (0.00%)	0 / 2 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Infections and infestations			
Abdominal abscess			
subjects affected / exposed	0 / 1177 (0.00%)	1 / 1175 (0.09%)	0 / 2 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 1	0 / 0
Abdominal wall abscess			
subjects affected / exposed	1 / 1177 (0.08%)	0 / 1175 (0.00%)	0 / 2 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Appendicitis			
subjects affected / exposed	1 / 1177 (0.08%)	0 / 1175 (0.00%)	0 / 2 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Cellulitis			
subjects affected / exposed	0 / 1177 (0.00%)	0 / 1175 (0.00%)	0 / 2 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Pneumonia			
subjects affected / exposed	0 / 1177 (0.00%)	1 / 1175 (0.09%)	0 / 2 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Gastroenteritis			
subjects affected / exposed	0 / 1177 (0.00%)	1 / 1175 (0.09%)	0 / 2 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0

Encephalitis viral			
subjects affected / exposed	0 / 1177 (0.00%)	1 / 1175 (0.09%)	0 / 2 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Diverticulitis			
subjects affected / exposed	1 / 1177 (0.08%)	0 / 1175 (0.00%)	0 / 2 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Peritonitis			
subjects affected / exposed	1 / 1177 (0.08%)	0 / 1175 (0.00%)	0 / 2 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Pneumonia aspiration			
subjects affected / exposed	1 / 1177 (0.08%)	0 / 1175 (0.00%)	0 / 2 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Sepsis			
subjects affected / exposed	2 / 1177 (0.17%)	0 / 1175 (0.00%)	0 / 2 (0.00%)
occurrences causally related to treatment / all	0 / 2	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 1	0 / 0	0 / 0
Tooth abscess			
subjects affected / exposed	0 / 1177 (0.00%)	0 / 1175 (0.00%)	0 / 2 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Septic shock			
subjects affected / exposed	1 / 1177 (0.08%)	0 / 1175 (0.00%)	0 / 2 (0.00%)
occurrences causally related to treatment / all	0 / 2	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Metabolism and nutrition disorders			
Diabetes mellitus inadequate control			
subjects affected / exposed	1 / 1177 (0.08%)	0 / 1175 (0.00%)	0 / 2 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Hyponatraemia			

subjects affected / exposed	1 / 1177 (0.08%)	0 / 1175 (0.00%)	0 / 2 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0

Serious adverse events	Cohort 2: PCV20	Cohort 2: V116	
Total subjects affected by serious adverse events			
subjects affected / exposed	3 / 100 (3.00%)	1 / 200 (0.50%)	
number of deaths (all causes)	0	0	
number of deaths resulting from adverse events	0	0	
Neoplasms benign, malignant and unspecified (incl cysts and polyps)			
Rectal adenocarcinoma			
subjects affected / exposed	0 / 100 (0.00%)	0 / 200 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Prostate cancer			
subjects affected / exposed	0 / 100 (0.00%)	0 / 200 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Invasive ductal breast carcinoma			
subjects affected / exposed	0 / 100 (0.00%)	0 / 200 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
General disorders and administration site conditions			
Non-cardiac chest pain			
subjects affected / exposed	0 / 100 (0.00%)	0 / 200 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Immune system disorders			
Drug hypersensitivity			
subjects affected / exposed	0 / 100 (0.00%)	0 / 200 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Respiratory, thoracic and mediastinal disorders			
Acute respiratory failure			

subjects affected / exposed	0 / 100 (0.00%)	0 / 200 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Dyspnoea			
subjects affected / exposed	0 / 100 (0.00%)	0 / 200 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Psychiatric disorders			
Alcohol withdrawal syndrome			
subjects affected / exposed	0 / 100 (0.00%)	0 / 200 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Alcoholism			
subjects affected / exposed	0 / 100 (0.00%)	0 / 200 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Delirium tremens			
subjects affected / exposed	0 / 100 (0.00%)	0 / 200 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Product issues			
Device occlusion			
subjects affected / exposed	0 / 100 (0.00%)	0 / 200 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Injury, poisoning and procedural complications			
Brain contusion			
subjects affected / exposed	0 / 100 (0.00%)	0 / 200 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Upper limb fracture			
subjects affected / exposed	0 / 100 (0.00%)	0 / 200 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	

Lower limb fracture			
subjects affected / exposed	1 / 100 (1.00%)	0 / 200 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Hip fracture			
subjects affected / exposed	0 / 100 (0.00%)	0 / 200 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Cardiac disorders			
Myocardial infarction			
subjects affected / exposed	0 / 100 (0.00%)	0 / 200 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Coronary artery embolism			
subjects affected / exposed	0 / 100 (0.00%)	0 / 200 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Cardiac arrest			
subjects affected / exposed	0 / 100 (0.00%)	0 / 200 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Nervous system disorders			
Cerebrovascular accident			
subjects affected / exposed	0 / 100 (0.00%)	0 / 200 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Encephalopathy			
subjects affected / exposed	0 / 100 (0.00%)	0 / 200 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Dizziness			
subjects affected / exposed	0 / 100 (0.00%)	0 / 200 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	

Radial nerve palsy			
subjects affected / exposed	0 / 100 (0.00%)	0 / 200 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Hepatic encephalopathy			
subjects affected / exposed	0 / 100 (0.00%)	0 / 200 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Ischaemic stroke			
subjects affected / exposed	0 / 100 (0.00%)	0 / 200 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Metabolic encephalopathy			
subjects affected / exposed	0 / 100 (0.00%)	0 / 200 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Ear and labyrinth disorders			
Vertigo			
subjects affected / exposed	0 / 100 (0.00%)	0 / 200 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Gastrointestinal disorders			
Abdominal pain			
subjects affected / exposed	0 / 100 (0.00%)	0 / 200 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Abdominal pain upper			
subjects affected / exposed	0 / 100 (0.00%)	0 / 200 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Colitis			
subjects affected / exposed	0 / 100 (0.00%)	0 / 200 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	

Duodenal ulcer perforation			
subjects affected / exposed	0 / 100 (0.00%)	0 / 200 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Small intestinal obstruction			
subjects affected / exposed	0 / 100 (0.00%)	0 / 200 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Oral mucosa erosion			
subjects affected / exposed	0 / 100 (0.00%)	0 / 200 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Jejunal perforation			
subjects affected / exposed	1 / 100 (1.00%)	0 / 200 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Inguinal hernia			
subjects affected / exposed	0 / 100 (0.00%)	0 / 200 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Hepatobiliary disorders			
Subcapsular hepatic haematoma			
subjects affected / exposed	0 / 100 (0.00%)	0 / 200 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Hepatic necrosis			
subjects affected / exposed	0 / 100 (0.00%)	0 / 200 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Hepatic cirrhosis			
subjects affected / exposed	0 / 100 (0.00%)	0 / 200 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Renal and urinary disorders			

Acute kidney injury			
subjects affected / exposed	0 / 100 (0.00%)	0 / 200 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Nephrolithiasis			
subjects affected / exposed	0 / 100 (0.00%)	0 / 200 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Musculoskeletal and connective tissue disorders			
Lumbar spinal stenosis			
subjects affected / exposed	0 / 100 (0.00%)	0 / 200 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Osteoarthritis			
subjects affected / exposed	0 / 100 (0.00%)	0 / 200 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Infections and infestations			
Abdominal abscess			
subjects affected / exposed	0 / 100 (0.00%)	0 / 200 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Abdominal wall abscess			
subjects affected / exposed	0 / 100 (0.00%)	0 / 200 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Appendicitis			
subjects affected / exposed	0 / 100 (0.00%)	0 / 200 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Cellulitis			
subjects affected / exposed	1 / 100 (1.00%)	0 / 200 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	

Pneumonia			
subjects affected / exposed	0 / 100 (0.00%)	0 / 200 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Gastroenteritis			
subjects affected / exposed	0 / 100 (0.00%)	0 / 200 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Encephalitis viral			
subjects affected / exposed	0 / 100 (0.00%)	0 / 200 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Diverticulitis			
subjects affected / exposed	0 / 100 (0.00%)	0 / 200 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Peritonitis			
subjects affected / exposed	0 / 100 (0.00%)	0 / 200 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Pneumonia aspiration			
subjects affected / exposed	0 / 100 (0.00%)	0 / 200 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Sepsis			
subjects affected / exposed	0 / 100 (0.00%)	0 / 200 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Tooth abscess			
subjects affected / exposed	0 / 100 (0.00%)	1 / 200 (0.50%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Septic shock			

subjects affected / exposed	0 / 100 (0.00%)	0 / 200 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Metabolism and nutrition disorders			
Diabetes mellitus inadequate control			
subjects affected / exposed	0 / 100 (0.00%)	0 / 200 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Hyponatraemia			
subjects affected / exposed	0 / 100 (0.00%)	0 / 200 (0.00%)	
occurrences causally related to treatment / all	0 / 0	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	

Frequency threshold for reporting non-serious adverse events: 5 %

Non-serious adverse events	Cohort 1: V116	Cohort 1: PCV20	Unplanned Participants
Total subjects affected by non-serious adverse events			
subjects affected / exposed	615 / 1177 (52.25%)	722 / 1175 (61.45%)	0 / 2 (0.00%)
Nervous system disorders			
Headache			
subjects affected / exposed	162 / 1177 (13.76%)	174 / 1175 (14.81%)	0 / 2 (0.00%)
occurrences (all)	176	184	0
General disorders and administration site conditions			
Fatigue			
subjects affected / exposed	240 / 1177 (20.39%)	235 / 1175 (20.00%)	0 / 2 (0.00%)
occurrences (all)	243	237	0
Injection site erythema			
subjects affected / exposed	82 / 1177 (6.97%)	86 / 1175 (7.32%)	0 / 2 (0.00%)
occurrences (all)	83	87	0
Injection site pain			
subjects affected / exposed	471 / 1177 (40.02%)	608 / 1175 (51.74%)	0 / 2 (0.00%)
occurrences (all)	474	615	0
Injection site swelling			

subjects affected / exposed	79 / 1177 (6.71%)	103 / 1175 (8.77%)	0 / 2 (0.00%)
occurrences (all)	79	105	0
Musculoskeletal and connective tissue disorders			
Myalgia			
subjects affected / exposed	75 / 1177 (6.37%)	82 / 1175 (6.98%)	0 / 2 (0.00%)
occurrences (all)	75	83	0

Non-serious adverse events	Cohort 2: PCV20	Cohort 2: V116	
Total subjects affected by non-serious adverse events			
subjects affected / exposed	78 / 100 (78.00%)	161 / 200 (80.50%)	
Nervous system disorders			
Headache			
subjects affected / exposed	26 / 100 (26.00%)	59 / 200 (29.50%)	
occurrences (all)	29	62	
General disorders and administration site conditions			
Fatigue			
subjects affected / exposed	34 / 100 (34.00%)	81 / 200 (40.50%)	
occurrences (all)	34	81	
Injection site erythema			
subjects affected / exposed	13 / 100 (13.00%)	32 / 200 (16.00%)	
occurrences (all)	13	32	
Injection site pain			
subjects affected / exposed	74 / 100 (74.00%)	143 / 200 (71.50%)	
occurrences (all)	74	143	
Injection site swelling			
subjects affected / exposed	14 / 100 (14.00%)	28 / 200 (14.00%)	
occurrences (all)	14	28	
Musculoskeletal and connective tissue disorders			
Myalgia			
subjects affected / exposed	14 / 100 (14.00%)	33 / 200 (16.50%)	
occurrences (all)	14	33	

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

Date	Amendment
16 May 2023	Amendment 2: Revised the superiority success criterion for serotype 15C.

Notes:

Interruptions (globally)

Were there any global interruptions to the trial? No

Limitations and caveats

None reported